The
Tournament Player's
Collection

## Tactical Chess Endings

John Nunn

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## Preface to the Reprint

Whenever a game is played containing an important opening innovation, it is immediately published all over the world. But if a game contains an interesting ending it may appear in one magazine and then sink into obscurity. The reasons are manifold. Chess columnists and to a lesser extent magazine editors are usually short of space, so they prefer short games to long ones. Secondly, there is a great demand for opening theory and so there are specialist publications dealing exclusively with it, whereas there is no magazine devoted to over-the-board endgames and precious few which have a regular endgame feature. Finally, there is a general impression that endgames are boring. Of course many are, but there are also plenty of exciting endgames as I hope to demonstrate in this book.
I am delighted that B.T. Batsford Ltd. have decided to reprint Tactical Chess Endings. This has given me the opportunity to correct a number of mistakes which have been pointed out to me over the years. I am very grateful to all those who spoke to or wrote to me with analytical contributions; their efforts have not gone to waste. Particular thanks are due to C.D. Meyer, who translated Tactical Chess Endings into German and found a number of errors in the process. I would also like to thank L. Barden, N. Davies, H. Hurme, W. Proskurowski, J. Speelman, J. Timman, R.G. Wade, Dr. Allitsch and C. vañ Wijgerden for bringing various points to my attention.

I am sure that errors remain and as before 1 am happy for them to be pointed out so that corrections may be included in any future editions.

## Introduction

When the word 'tactics' is mentioned, most people think of the vast array of possible middle-game combinations. Everyone would agree that forks, pins, discovered attacks and skewers are tactical and most would accept that almost any forcing sequence of moves in the middle game is tactical. But I feel that tactics is something far more general than the above examples, which are more properly described as combinations, would indicate.

Chess ideas are often classified as 'tactical' or 'strategical'. Strategy is concerned with the creation of plans. When a player decides to give his opponent doubled pawns, it is not usually because he has calculated specific variations leading to the capture of one of the weak pawns, but because he knows from experience that sooner or later the doubled pawns will be indefensible. This sums up the difference between strategy and tactics. We can say that an idea is tactical if it is necessary to calculate specific variations to ensure its correctness, whereas it is strategical if it is based on general considerations rather than concrete calculation. With this definition, it is clear that tactics can occur at any stage of the game. Indeed, simplified endgames are especially prone to be tactical, since in such positions it is possible to calculate every worthwhile variation and hence to be absolutely certain which is the best move. Consider, for example, the following position:

N. D. Grigoriev, 1st Pr., Shakhmaty o SSSR 1937

The reader is invited to find out for himself how White can win this position before the solution is revealed in Chapter 11. 1 think the reader will agree that tactics predominate in the solution, since White cannot possibly play the right moves unless he has calculated up to the final zugzwang position.

This book is about such tactical endgames. It is surprising how frequently the smooth positional flow of endgames is interrupted by the intervention of an unexpected tactic and it is clear from many of the examples in this book that players miss their chances in this respect. People don't expect tactics to break out in the ending and so they don't look for them.

The positions in this book were selected for their interest and, in many cases, their entertainment value. The reader will not find a logical progression from start to finish, since a series of positions with similar ideas is rather dull. I have grouped the positions in chapters, but the classification is so broad that there is enormous diversity within each chapter. Whilst the primary purpose of this book is to entertain, playing through the analysis of the positions cannot help but educate at the same time. I should mention that 1 have assumed the reader to have a basic knowledge of endgame theory when writing this book, but no more than would be possessed by any club player.

The reader will find that there are a number of studies (i.e. composed positions in which White to play must either win or draw-the stipulation is placed below the diagram in this book) in amongst the game positions. I have chosen these both for the elegance of their solutions and because (with the exception of position 128, perhaps) they have natural positions of considerable relevance to over-theboard play. The reader may wish to solve them himself or he may prefer just to play over the solutions. Conversely, study composers will find many stimulating ideas contained in the over-the-board examples!

Happy endings!

## 1 Mate

Although mate is the object of the game, it might seem a strange topic to find in a book on the endgame. It is true that mating ideas appear relatively infrequently in the endgame, but one consequence of this is that players are not looking for them and this can lead to dreadful oversights. We shall see some of these later in the chapter. But mate can also occur in the normal course of an ending, as in the following example.


Smyslov-Benko, Monte Carlo 1969
Black suffers from two problems. First, his knight is temporarily out of play and secondly the f 7 square is very weak. Smyslov, a noted expert on endgame play, uses these factors to launch an attack on Black's king.

## 1 Nc6!

The threat is 2 e 4 , followed by 3 Ne 5 , while $1 \ldots \mathrm{Nc} 3$ is impossible owing to 2 Ne 7 . Since the rook is going to be driven away from d 5 anyway, Benko decides on an immediate counter-attack against White's e-pawn.

| 1 | ...Rd2 |
| :---: | :---: |
| $2 \mathrm{Ne5}$ | $\mathbf{R \times e 2}$ |
| $3 \mathrm{~N} \times \mathrm{f} 7$ | h5 |

Played in order to avoid the loss of the h-pawn after $\mathrm{Ng} 5+$.

This allows a mating combination, but after 4...Kf8 5 Kf1 Re5 6 f4 Re3 7 Kf 2 , winning the e-pawn, Black is still losing.

$$
\mathbf{5} \text { Kf1: } \quad \mathbf{R} \times \mathbf{f} 2+
$$

If the rook moves away then 5 ... Rb2 $6 \mathrm{f} 4 \mathrm{Kf5} 7 \mathrm{~h} 3$ ! forces mate by Rf7. After $5 \ldots \mathrm{R} \times \mathrm{f} 2+$ Smyslov finished by $6 \mathrm{~K} \times \mathrm{f} 2 \mathrm{~K} \times \mathrm{g} 57 \mathrm{Ke} 3 \mathrm{Kg} 4$ 8 b5 Kh3 9 Rc4 Nb2 ( $9 \ldots \mathrm{Nc} 510 \mathrm{R} \times \mathrm{c} 5$ ) 10 Rc 2 1-0 since $10 \ldots \mathrm{Na} 4$ 11 Kf4 h4 $12 \mathrm{~g} \times \mathrm{h} 4 \mathrm{~K} \times \mathrm{h} 413 \mathrm{Ke} 5$ wins easily.

The mating attack in the next position is as sudden as a bolt of lightning.


Simagin-Bronstein, Moscow 1947
With a second Black queen about to arrive it appears that White will have to be content with perpetual check. But one move changes the picture completely.

$$
1 \text { Bg5! } \quad h 1=Q
$$

Black challenges White to prove that a mate does exist, but there was little choice since $1 \ldots \mathrm{f} \times \mathrm{g} 52 \mathrm{f} 6$ is certainly mate, while after $1 \ldots \mathrm{Q} \times \mathrm{g} 52 \mathrm{Qd} 8+\mathrm{Kh} 73 \mathrm{Qc} 7+$ and $4 \mathrm{Q} \times \mathrm{h} 2$ White's material advantage is decisive.

| $2 \mathrm{Qe8}+$ |  | Kg7 |
| :---: | :---: | :---: |
| 3 Qg6+ |  | Kf8 |
| 4 Q $\times$ f6+ |  | Kg8 |
| 5 Qd8+ | $\checkmark$ | Kg7 |
| 6 Qe7+ |  | Kg8 |
| $7 \mathrm{Qe8}+$ |  |  |

All Black's moves were forced except for $5 \ldots \mathrm{Kg} 7$, but any other fifth move led to the same thing. Now White mates in three by $7 \ldots \mathrm{Kg} 7$ (7...Kh7 8 Qg6 $+\mathrm{Kh} 89 \mathrm{Bf6}$ mate) $8 \mathrm{f} 6+\mathrm{Kh} 79 \mathrm{Qf7}+$ and 10 Qg 7 mate.

Even when the material has been greatly reduced, one should never forget the possibility of mate:


Vesely-Antos, CSSR 1968

White's material advantage would normally be enough to win easily, but if White simply plays his knight to the queenside to block the a-pawn it would be unable to take any further part in the action on the other side of the board. Even with the infinite supply of tempi provided by the knight this would leave a drawn king and pawn ending, e.g. 1 Nd 5 ? a $42 \mathrm{Nb} 4 \mathrm{a} 33 \mathrm{Kf} 7 \mathrm{Kh} 74 \mathrm{~g} 6+\mathrm{Kh} 85 \mathrm{Kf} 8 \mathrm{a} 2$ with stalemate. But a little finesse makes all the difference.

$$
1 \text { Kf7: } \quad \text { a4 }
$$

If $1 \ldots$ Kh7 $2 \mathrm{~g} 6+\mathrm{Kh} 83 \mathrm{Kf} 8$ and $4 \mathrm{Ne} 6-\mathrm{d} 8-\mathrm{f} 7$ mate.

| 2 Ng6+! | Kh7 |
| :--- | :--- |
| 3 Ne5 | a3 |

Thanks to the position of the king, White gains a tempo with his pawn.

$$
4 \mathrm{~g} 6+\quad \text { Kh6 }
$$

Or 4...Kh8 5 Kf 8 and mates.

| $5 \mathrm{Ng} 4+$ | Kg5 |
| :---: | :---: |
| 6 Ne 3 | a2 |
| 7 Nc 2 |  |

## 1-0

Once Black has committed his king to h6 rather than h8 blocking the a-pawn is enough to win, since $7 \ldots$ Kh6 8 Nal picks up the g-pawn.


This study has a surprising mating finale after several moves of tactical interchanges. The advantage of one piece is not enough to win without pawns, but two extra pieces are enough to win, except for two knights against king. So White must move his knight on g6 and hope to pick up a piece from the king fork.

## 1 Nh8+

1 Nf8 allows Black to avoid loss of material with $1 \ldots \mathrm{Bd} 6$, so this is the only reasonable move.

$$
1 \quad . . . \mathrm{Kg} 8
$$

Black must continue attacking a piece. Now it seems that White can win with either capture, but $2 \mathrm{~K} \times \mathrm{h} 2(2 \mathrm{Ng} 5 \mathrm{Ne} 3$ ! is similar) Ne 3 ! draws as Black has the twin threats of $3 \ldots \mathrm{~K} \times \mathrm{h} 7$ and $3 \ldots \mathrm{Ng} 4+$.

$$
2 \mathrm{~K} \times \mathrm{g} 2 \quad \mathrm{Bf} 4
$$

Forced, or else White simply defends all his pieces by 3 Ng 5 .

$$
3 \text { Ng6 } \quad \text { Bh6! }
$$

A subtle defence. Black prevents $4 \mathrm{Nhf8}$ and prepares a stalemate trap!

$$
4 \mathrm{Ng} 5 \quad \text { Bg7! }
$$

White must avoid the exchange of his bishop, but 5 Be 7 allows $5 \ldots$ Bf6! giving White the unpleasant choice between stalemate, an exchange of bishops, or the loss of a piece. Also $5 \mathrm{Bd} 8 \mathrm{Bf} 6!6 \mathrm{Ne} 7+$ $\mathrm{Kf} 87 \mathrm{Nh} 7+\mathrm{Ke} 8$ leads to a draw.

## $5 \mathrm{Ne} 7+$

The only remaining move, but a good one. The top right corner is reflected about the diagonal al-h8, so the Black king can be forced
to approach the White one! If Black replies 5...Kf8 then 6 Ne6+ wins.

| 5 | $\ldots$ Kh8 |
| :--- | :--- |
| 6 | Nf7+ |
| 7 | Bh4! |$\quad$ Kh7

Now this does win!


A mate which one is unlikely to see in practice!
Since players don't expect mate to occur in the ending it sometimes happens that a golden opportunity for a brilliancy is missed, as in the next two positions.


Zilber-Seirawan, Hastings 1979-80
Materially White does not have sufficient advantage to win, since Black can quite easily exchange White's last pawn by ...Rg3 followed by ...h5, for example. But Black's king is in an unfortunate predicament. In the game White chose $1 \mathbf{B c} 3$, but after $\mathbf{1 . . . g 5} 2 \mathbf{R h} 8+\mathbf{K g} 6$ 3 Rg8 + Kh7 4 Rg7+ Kh8 5 Be5 (surprisingly White cannot profit very much from his battery, e.g. 5 Bf6 Rf3 $6 \mathrm{R} \times \mathrm{f} 7+\mathrm{Kg} 87 \mathrm{Rg} 7+$ Kf8 8 Be5 Rf4! $9 \mathrm{~B} \times \mathrm{f} 4 \mathrm{~K} \times \mathrm{g} 7$, followed by $\ldots \mathrm{Kg} 6$ and ...h5 drawing) Re3 $6 \mathbf{R} \times \mathrm{g} 5+\mathbf{K h} 77$ Rf5 $(7 \mathrm{Rg} 7+\mathrm{Kh} 88 \mathrm{Bd} 4 \mathrm{Re} 4$ gives White nothing) Kg6 8 Kc5 Re4 9 Rf6 + Kg5 $10 \mathrm{Kd5}$ R $\times \mathrm{g} 411 \mathrm{R} \times f 7$, and the game ended in a draw after another 41 moves. But White could have won by playing a more drastic move.

$$
1 \mathrm{~g} 5!
$$

Hard to see, because one normally doesn't voluntarily give away
one's last pawn, but by preventing g5 Black's king is imprisoned and he is forced to give up his rook.

| 1 | ...Rb3+ |
| :---: | :---: |
| $2 \mathrm{Ka6}$ | $\mathrm{h} \times \mathrm{g} 5$ |

$2 \ldots \mathrm{Kg} 73 \mathrm{Bc} 3+\mathrm{f} 64 \mathrm{~g} \times \mathrm{f} 6+$ is hopeless and $2 \ldots \mathrm{Ra} 33 \mathrm{~Kb} 5 \mathrm{~h} \times \mathrm{g} 5$ is worse than the main line, as the White king is nearer the kingside.

| $3 \mathbf{B c 3}$ | $\mathrm{R} \times \mathrm{c} 3$ |
| :--- | :--- |
| $4 \mathrm{R} \times \mathrm{c} 3$ | $\mathrm{g4}$ |
| $5 \mathrm{Kb5}$ | $\mathbf{K h 6}$ |

6 Kc 4 Kg 57 Kd 3 f 5 (however Black plays White can always bring his king in front of the pawns) $\mathbf{8 ~ K e 2 ~ f 4 9 R c 4 ~ f 3 + ( 9 \ldots K f 5 1 0 ~ R c 5 + ~}$ and both $10 \ldots$ Kf6 11 Kd 3 and $10 \ldots \mathrm{Ke} 411 \mathrm{Rg} 5$ are easy wins) $\mathbf{1 0} \mathrm{Kf} 2$ Kh4 11 Rc8 and Black must allow the king in to g3, with a simple win.

In the next position one of the world's top grandmasters overlooks an unusual mating chance and was very lucky to win the game.


Gufeld-Andersson, Camaguey 1974
Black must have been feeling confident in this position, since he has a decisive material advantage and $1 \mathrm{R} \times \mathrm{e} 3+\mathrm{f} \times \mathrm{e} 32 \mathrm{R} \times \mathrm{g} 2+\mathrm{Kf} 3$ wins easily after $3 \mathrm{Rg} 8 \mathrm{Ra} 1+4 \mathrm{Kh} 2 \mathrm{e} 25 \mathrm{Rf} 8+\mathrm{Kg} 4$ etc. But Gufeld found a surprising move which put Andersson off his stride.

## 1 Rb3! : Ra2?

Of course if $1 \ldots \mathrm{R} \times \mathrm{b} 3$ ? $2 \mathrm{R} \times \mathrm{e} 3+$ is stalemate however Black recaptures, but Black could have forced mate by $1 \ldots \mathrm{f} 3$ !! $2 \mathrm{Rb} \times \mathrm{e} 3$ ( 2 Rb 2 Ra 8 is similar, while $2 \mathrm{Re} \times \mathrm{e} 3 \mathrm{Ra} 1+$ mates at once) Ra8! and White is so paralysed by the threat of ..f2 mate that he cannot prevent $\ldots \mathrm{Rh} 8$ and $\ldots \mathrm{Rh} 1$ mate ( $3 \mathrm{R} 1 \mathrm{e} 2 \mathrm{Ra} 1+4 \mathrm{Re} 1 \mathrm{R} \times \mathrm{e} 1+5 \mathrm{R} \times \mathrm{e} 1 \mathrm{f} 2$ mate or $3 \mathrm{R} 3 \mathrm{e} 2 \mathrm{f} \times \mathrm{e} 2$ wins).

$$
2 \mathbf{R b} \times \mathbf{e} 3+\quad f \times e 3
$$

2...f3 no longer works because of $3 \mathrm{Rb} 3 \mathrm{Ra} 84 \mathrm{Rb} 2 \mathrm{Rh} 85 \mathrm{R} \times \mathrm{g} 2+$ $\mathrm{f} \times \mathrm{g} 26 \mathrm{Re} 3+\mathrm{Kf} 47 \mathrm{Ra} 3$ with a draw.

$$
3 \mathbf{R} \times \mathrm{e} 3+\quad \mathrm{Bf} 3
$$

This position, despite the bad position of White's king, is a theoretical draw. However, in the continuation Gufeld lost his way (and the game): 4 Kf1 Rd2 5 Re8 Rd7 6 Rg8+ Kf4 7 Re8 Rd2 8 Ke1 Rd1+ 9 Kf2 Rd2+10 Kel Rh2 11 Re7?? (11 Rb8 was correct, when after $11 . . \mathrm{Be} 412 \mathrm{Rb} 3$ prevents the king from advancing to the sixth rank) Be4! (now Black is winning-the bishop can interpose on d3 or f3, so the Black king is assured a quiet life on e3) $\mathbf{1 2} \mathbf{~ K d 1}$ (loses quickly, but even the best defence wouldn't last much longer: 12 Ra 7 Ke 313 Rf7 Rg2 14 Rf8 Bg6! 15 Rf6 Bd3 16 Re6 + Be 417 Rf6 Re2+ 18 Kf1 Rc2 $19 \mathrm{Kg} 1 \mathrm{Rg} 2+20 \mathrm{Kf} 1 \mathrm{Rg} 5$ ! 21 Ke 1 Bf 5 ! and mate can no longer be avoided-a line which dates back to Philidor) Ke3 $\mathbf{1 3 ~ K c 1}$ (forced) Re2+ 14 Kd1 Re8 15 Re5 (White can only move the rook up and down the e-file) $\mathbf{R h 8} 16 \mathrm{Kc1} \mathbf{R b 8} 17 \mathbf{R b 5} \mathbf{R} \times \mathbf{b 5} \mathbf{0 - 1}$.

In the following pair of positions White allows a mating attack which could have been avoided. In the first position the oversight amounts to a blunder, but in the second both the mate and especially the defensive move could easily be overlooked.


Hamann-Bednarski, Aarhus 1971

Black clearly has a draw by perpetual check with ...N $\times \mathrm{h} 2$ and ...Nf3+, but in view of the proximity of the a-pawn to the queening square it is hard to believe that Black can do more.

| 1 | $\ldots \mathrm{~N} \times \mathrm{h} 2$ |
| :--- | :--- |
| $2 \mathrm{a6}$ | $\mathrm{Nf3}+$ |
| $3 \mathrm{Kf1}$ | $\mathrm{g5}$ |

Black has his draw in reserve, so this winning attempt involves no risk.

## 4 a7?

Overlooking the threat! $4 \mathrm{~N} \times \mathrm{c} 6$ ! forces the draw, since $4 \ldots \mathrm{~h} 45 \mathrm{~g} \times \mathrm{h} 4$ $\mathrm{g} \times \mathrm{h} 46 \mathrm{Nd} 4$ halts Black's attack and wins.

4
...h4!
So that if $5 \mathrm{a} 8=\mathrm{Qh} \times \mathrm{g} 3$ threatens $6 \ldots \mathrm{~g} 2$ mate and $6 \ldots \mathrm{Rf} 2$ mate.

$$
5 \mathrm{~g} \times \mathrm{h4} \quad \mathrm{~g} 4
$$

With the same idea. White manages to avert mate, but only by giving up the exchange.

| 6 Ra 5 | $\mathrm{g3}$ |
| :--- | :--- |
| $7 \mathrm{Rg} 5+$ | $\mathbf{N} \times \mathrm{g} 5$ |

and Black should win; but the further course of the game was erratic: $8 \mathrm{~h} \times \mathrm{g} 5$ ( $8 \mathrm{a} 8=\mathrm{Q} \mathrm{g} 2+$ and $9 \ldots \mathrm{Nf} 3$ mate) Ra2 $9 \mathrm{~N} \times \mathrm{c} 6$ e6 $10 \mathrm{c5}$ Ra6? (a move which threatens nothing and serves only to lose the $g$ pawn $-10 \ldots \mathrm{Kg} 6$ followed by the advance of the king won easily) 11 Kg2 Kg6 12 Ne5+? (incomprehensible. Simply $12 \mathbf{K} \times$ g $3 \mathrm{~K} \times$ g 513 Kf3 f5 14 Ke 2 e5 and now, not 15 Kd 3 ? f4 $16 \mathrm{e} \times \mathrm{f} 4 \mathrm{e} \times \mathrm{f} 417 \mathrm{Kc} 4 \mathrm{f} 3$ $18 \mathrm{~Kb} 5 \mathrm{Ra} 119 \mathrm{Na} 5 \mathrm{f} 220 \mathrm{a} 8=\mathrm{Q} \mathrm{f} 1=\mathrm{Q}+$, when Black should win, but $15 \mathrm{~N} \times \mathrm{e} 5 \mathrm{R} \times \mathrm{a} 716 \mathrm{Kf} 3$ is a draw even without the c-pawn-but note that if Black prepares ...e 5 by $14 \ldots \mathrm{Kf6}$ then 15 Kd 3 ! is even good for White) $\mathbf{K} \times \mathbf{g} 513 \mathbf{N} \times \mathbf{f 7}+\mathbf{K h 4} 14 \mathrm{Kf3} \mathbf{R} \times \mathbf{a 7} \mathbf{0} \mathbf{0} \mathbf{1}$. Rather a dismal end to an imaginative game.


Black's attack is very dangerous, but with accurate play White could have drawn.

| $\mathbf{1}$ | b7 | $\quad . . f 3$ |
| :--- | :--- | :--- |

$2 \mathrm{R} \times \mathrm{f} 3 \mathrm{~N} \times \mathrm{f} 3+3 \mathrm{Kg} 2 \mathrm{Kg} 4$ leads to a quick mate, so White has no
choice but to press on and hope the pawn queens in time.
$\mathbf{2}$ b8 $=\mathbf{Q}$ ?! $\quad \ldots$ Rc2

One can hardly blame White for playing such a natural move, since many players would use the logic that if $3 \mathrm{~b} 8=\mathrm{Q}$ fails then White must be lost. However 3 Rf1! would have put up a much stiffer fight. The win can only be achieved by a remarkable idea: 3 Rf 1 ! $\mathrm{Rg} 2+(3 \ldots \mathrm{~g} 2$ is met by 4 Rbb1! and White wins, rather than $4 \mathrm{~b} 8=\mathrm{Q}$ ? $\mathrm{f} 2+$ ! with the reverse result) 4 Kh 1 Re 2 !! ( $4 \ldots \mathrm{f} 25 \mathrm{R} \times \mathrm{g} 3 \mathrm{R} \times \mathrm{g} 36 \mathrm{~b} 8=\mathrm{QRh} 3+7 \mathrm{Qh} 2$ draws while $4 \ldots \mathrm{Rh} 2+5 \mathrm{Kgl}$ g2 $6 \mathrm{Rfb} 1!\mathrm{Rh} 1+7 \mathrm{Kf} 2$ is another win for White) and now:

1) $5 \mathrm{Rb} \times \mathrm{f} 3(5 \mathrm{Kg} 1 \mathrm{~g} 2$ will transpose after 6 Rbb 1 , while $5 \mathrm{Rf} \times \mathrm{f} 3 \mathrm{Rel}+$ loses at once) $\mathrm{g} 2+6 \mathrm{Kg} 1 \mathrm{~g} \times \mathrm{fl}=\mathrm{Q}+7 \mathrm{~K} \times \mathrm{f} 1 \mathrm{Rb} 2$ wins on material.
2) $5 \mathrm{Rfb} 1 \mathrm{~g} 2+6 \mathrm{Kh} 2 \mathrm{f} 2$ and White has nothing better than $7 \mathrm{~b} 8=\mathrm{Q}$, when Black wins as in the game.
3) $5 \mathrm{~b} 8=\mathrm{Qg} 2+6 \mathrm{Kg} 1 \mathrm{f} 2+7 \mathrm{Kh} 2 \mathrm{~g} 1=\mathrm{Q}+$ as in line 2 .
4) $5 \mathrm{Rbbl} \mathrm{g} 2+6 \mathrm{Kg} 1 \mathrm{~g} \times \mathrm{fl}=\mathrm{Q}+7 \mathrm{~K} \times \mathrm{f} 1 \mathrm{Nf} 5!8 \mathrm{~b} 8=\mathrm{Q} \mathrm{Ne} 3+9 \mathrm{Kgl}$ $\mathrm{f} 2+10 \mathrm{Kh} 1 \mathrm{Re} 1+$ (this move explains why Black had to transfer his rook from c2 to e2) $11 \mathrm{Kh} 2 \mathrm{Ng} 4+12 \mathrm{Kg} 3 \mathrm{fl}=\mathrm{Q}$ and White has only one check, whereupon Black either mates or (after Qe8+ for example) wins on material.

| 3 | ...f2+ |
| :---: | :---: |
| $4 \mathrm{Kh1}$ | g2+ |
| 5 Kh 2 | $\mathrm{gl}=\mathrm{Q}+$ |
| $6 \mathrm{R} \times \mathrm{g} 1$ | Nf3+! |

Perhaps White had missed this move. $6 \ldots \mathrm{fl}=\mathrm{Q}+7 \mathrm{Kh} 1$ is no good for Black.

## 0-1

because of the three lines $7 \mathrm{R} \times \mathrm{f} 3 \mathrm{fl}=\mathrm{Q}+$ and mates in three more moves at most, $7 \mathrm{Kg} 3 \mathrm{f} \times \mathrm{gl}=\mathrm{Q}+8 \mathrm{~K} \times \mathrm{f} 3 \mathrm{Qg} 4+9 \mathrm{Ke} 3 \mathrm{Re} 2+10 \mathrm{Kd} 3$ $\mathrm{Qe} 4+$ and $11 \ldots \mathrm{Rc} 2$ mate or finally $7 \mathrm{Kh} 3 \mathrm{~g} 4+!8 \mathrm{R} \times \mathrm{g} 4 \mathrm{f} 1=\mathrm{Q}+9$ $\mathrm{Kg} 3 \mathrm{Qg} 2+10 \mathrm{Kf} 4 \mathrm{Q} \times \mathrm{g} 4+11 \mathrm{Ke} 3 \mathrm{Qd} 4+12 \mathrm{~K} \times \mathrm{f} 3 \mathrm{Rf} 2+13 \mathrm{Kg} 3 \mathrm{Ol} 4$ mate.

The next position reduces to an interesting ending of $\mathrm{R}+\mathrm{N} v \mathrm{R}$.
White's material advantage is enough to win, but his pieces are badly tied up. In order to free himself it is necessary to sacrifice the h-pawn and try for a mating attack.

$$
1
$$

Black's rook is not well placed on cl if the position reduces to $\mathrm{R}+\mathrm{N}$ $v R$, since it is within the range of influence of the White knight. Black could have drawn by withdrawing his rook as far as possible by $1 \ldots \mathrm{Ra} 1$ ! and now:


Pedersen-Hecht, Denmark-W. Germany 1972
(A) $2 \mathrm{Kg} 2 \mathrm{f} 3+3 \mathrm{Kf} 1$ ( $3 \mathrm{Kf} 2 \mathrm{Ra} 2+4 \mathrm{Kg} 1 \mathrm{Ra} 15 \mathrm{Rd} 4+$ transposes to B) Kh3 4 Rd 2 ( $4 \mathrm{Rh} 8+\mathrm{Kg} 45 \mathrm{Kel} \mathrm{f} 2+$ draws) f2! and the position reduces to a $\mathrm{R}+\mathrm{N} v \mathrm{R}$ ending which Black can draw fairly comfortably. (B) $2 \mathrm{Rd} 3 \mathrm{f} 3 \mathrm{Rd} 4+\mathrm{Kh} 3$ is similar to the game, but with the rook on a1, which as we shall see would have made a big difference.
(C) 2 Kf1 f3 3 Ke1 Kh3 4 Rd2 Rb1 5 Rá2 Rc1 6 Kd2 Rb1 7 Kc 2 Rb 8 $8 \mathrm{Kc} 3 \mathrm{Rc} 8+$ with a comfortable draw, since the White king cannot move to the second rank or to the d-file (due to $\ldots \mathrm{Rd} 8+$ ).

| $\mathbf{2}$ Rd4+ |  |
| :--- | :--- |
| $\mathbf{3}$ Kf2! | Kh3 |

The only move, for if White hesitates Black will play ...Ra1 and draw.

$$
3 \quad \text {...Rc2+ }
$$

Black must play to win the pawn, or else White improves his position by Ne3.

| $\mathbf{4} \mathrm{K} \times \mathrm{f3}$ | $\mathrm{~K} \times \mathrm{h} 2$ |
| :--- | :--- |
| $\mathbf{5} \mathrm{Ne} 3!$ | $\mathrm{Rc} 3 ?$ |

Allows a straightforward win. The main line is $5, . \mathrm{Rc} 1(5 \ldots \mathrm{Ra} 2 / \mathrm{b} 2$ $6 \mathrm{Ng} 4+\mathrm{Kh} 37 \mathrm{Nf} 2+\mathrm{Kh} 28 \mathrm{Rh} 4+$ mates) $6 \mathrm{Rh} 4+$ ( 6 Rd 8 Ral or 6 $\mathrm{Rd} 2+\mathrm{Kh} 37 \mathrm{Rd} 8 \mathrm{Kh} 4$ only leads to a draw) $\mathrm{Kg} 17 \mathrm{Rg} 4+\mathrm{Kh} 2$ (7... Kh1 8 Kf 2 mates) 8 Rg 3 ! (threatening mate in three, starting with $9 \mathrm{Ng} 4+$ ) Rc3 ( $8 \ldots \mathrm{Kh} 19 \mathrm{Kf} 2 \mathrm{Kh} 210 \mathrm{Ng} 4+$ ) 9 Kf 2 (threatens 10 $\mathrm{Ng} 4 / \mathrm{f} 1+$ and 11 Rg 1 mate) Rcl $10 \mathrm{Ng} 4+\mathrm{Kh} 111 \mathrm{Rh} 3$ mate.

| $6 \mathbf{R h 4}+$ | KgI |
| :--- | :--- |
| 7 Rg4+ | Kh2 |
| $8 \mathbf{K f 2}$ | Kh3 |

If the Black rook were on a3 rather than c3 he would be able to hold the draw by $8 \ldots \mathrm{Ra} 2+$.

9 Rg3+

$$
1-0
$$

as Black loses his rook after $9 \ldots$ Kh4 10 Nf5+.


This study is one of my favourites, mainly because of its witty finish. Black threatens $1 \ldots \mathrm{Rg} 1+$, so the lines $1 \mathrm{f} 7 \mathrm{Rf} 62 \mathrm{Rd} 7 \mathrm{Rf} 1+$ and $3 \ldots \mathrm{~b} 3+$ or $1 \mathrm{Rf} 5 \mathrm{Rg} 1+2 \mathrm{Kc} 2 \mathrm{~b} 3+3 \mathrm{Kc} 3$ ( 3 Kd 3 allows Black to promote with check) $\mathrm{b} 24 \mathrm{f} 7 \mathrm{Rc} 1+5 \mathrm{Kd} 4 \mathrm{Rc} 8$ are not good enough.

## 1 Bg5

Black's rook is immobilised and White threatens 2 f7. Black presses ahead with his counterplay.

| 1 | ...b3 |
| :---: | :---: |
| 2 Rd2+ | Kal |
| 3 f 7 ! |  |

The position of the Black king in the corner might tempt White to try 3 Be 3 , but $3 \ldots \mathrm{~b} 2+4 \mathrm{R} \times \mathrm{b} 2 \mathrm{R} \times \mathrm{f} 65 \mathrm{Bd} 4 \mathrm{Rf} 1+6 \mathrm{Kc} 2 \mathrm{a} 3$ ! leaves White with nothing better than $7 \mathrm{Rb} 1+\mathrm{Ka} 28 \mathrm{R} \times \mathrm{f} 1$, with stalemate. 3 f7 looks very strong since the reply $3 \ldots$ a3 loses after 4 Rd1! Rd6 (the only chance) $5 \mathrm{f} 8=\mathrm{Q} \mathrm{b} 2+6 \mathrm{Kc} 2+\mathrm{R} \times \mathrm{d} 17 \mathrm{Q} \times \mathrm{a} 3$ mate.

| 3 | $\ldots R \times g 5!$ |
| :--- | :--- |
| $\mathbf{4} \mathbf{f 8}=\mathrm{Q}$ | $\mathrm{Rg} 1+$ |
| $\mathbf{5} \mathbf{R d 1}$ | $\mathrm{Rg} 2!$ |

If $5 \ldots \mathrm{~b} 2+6 \mathrm{Kc} 2+\mathrm{R} \times \mathrm{d} 17 \mathrm{Qa} 3$ mate, but the surprising defence in the main line threatens $6 \ldots \mathrm{Rc} 2$ mate and $6 \ldots \mathrm{~b} 2$ mate. What can

White play? If $6 \mathrm{Qa} 3+(6 \mathrm{Rd} 2$ is just a draw by repetition) Ra 27 Qc 5 , for example, then not $7 \ldots \mathrm{~b} 2+8 \mathrm{Kd} 2+\mathrm{b} 1=\mathrm{Q}+9 \mathrm{Ke} 1$ and wins, but simply $7 \ldots$ Rh2! threatening ...b2 mate again and leaving White with nothing better than a repetition. But there is a win hidden in this line!

| $6 \mathrm{Qa} 3+$ | Ra 2 |
| :--- | :--- |
| $7 \mathrm{Rd} 2!$ | $\mathrm{R} \times \mathrm{a} 3$ |

Or $7 \ldots \mathrm{~b} 2+8 \mathrm{Q} \times \mathrm{b} 2+\mathrm{R} \times \mathrm{b} 29 \mathrm{R} \times \mathrm{b} 2 \mathrm{a} 310 \mathrm{Rb} 1+\mathrm{Ka} 211 \mathrm{Rb} 8 \mathrm{Ka} 1$ $12 \mathrm{Kc} 2 \mathrm{a} 213 \mathrm{~Kb} 3 \mathrm{~Kb} 114 \mathrm{Ka} 3+\mathrm{Ka} 115 \mathrm{Rh} 8 \mathrm{~Kb} 116 \mathrm{Rh} 1+$ winning.

## 8 Rb2 $\quad$ Ra2

A novel zugzwang!

## 9 Rbl mate

The next position ends with mate, but the main interest lies in the intricate knight and pawn ending leading up to it.


Yanofsky-Golombek, Hastings 1951-2

## 1 c5?!

White should not have given up his b-pawn. Simply 1Nd4! Kh3 2c5g4 3 b 4 Nb 74 Kd 5 Nd 85 c 6 wins easily.

$$
1 \quad \ldots \mathrm{~N} \times \mathrm{b} 3
$$

White can still win, but only with very accurate play.

| 2 c 6 | $\mathrm{Na5}$ |
| :--- | :--- |
| $3 \mathrm{c7}$ | $\mathrm{Nc4}$ |
| $4 \mathrm{Kd5}$ | $\mathrm{Nb6}+$ |
| $5 \mathrm{Kc6}$ | Nc 8 |

More or less forced up to here, but now White must decide whether to try Kb 7 or Kd 7 .

## 6 Kd7 Nb6+

The only move because $6 \ldots \mathrm{Na} 7$ allows 7 Nd 4 , followed by Nc 6 promoting the pawn.

## 7 Kc6

White decides to go back, since after 7 Kd 8 Kh 4 ! (not 7...Kf5? 8 Nf8 $\mathrm{g} 49 \mathrm{Nd} 7 \mathrm{~g} 310 \mathrm{~N}+\mathrm{b} 6$ and White promotes with check) 8 Nf 8 g 49 Nd 7 $\mathrm{g} 310 \mathrm{~N}+\mathrm{b} 6 \mathrm{~g} 211 \mathrm{c} 8=\mathrm{Q} \mathrm{g} 1=\mathrm{Q}$ the knight is too far away for White to have any winning chances.


This time the other move is correct! If $8 \ldots \mathrm{Nd} 6+9 \mathrm{~Kb} 8 \mathrm{Kf5}$ (9...Kh4 $10 \mathrm{Nd} 4 \mathrm{~g} 411 \mathrm{Nf} 5+$ and $9 \ldots \mathrm{Kh} 510 \mathrm{Ng} 7+-\mathrm{e} 8$ are just as bad) $10 \mathrm{Nd} 4+$ and 11 Nb 5 and White wins.

## 9 Nd4 Kf4!

The only square. If $9 \ldots \mathrm{Kh} 4$ (after $9 \ldots$ Kh3 White promotes with check) 10 Nc 6 Nf 511 Kb 8 Nd 612 Nd 4 and the threat of $13 \mathrm{Nf} 5+$ gains a decisive tempo.

## 10 Nc6 Nf5 <br> 11 Kb 8 ?

This move leads to an ending of $\mathrm{Q}+\mathrm{Nv} \mathrm{Q}$ which should be drawn with correct play. White could have won with the paradoxical move 11 Kc 8 ! blocking the pawn; the threat of Kd 7 forces $11 \ldots \mathrm{Nd} 6+12 \mathrm{Kd} 7 \mathrm{Nc} 413$ Ne 7 Ke 5 (there is nothing better as White threatened 14 Kc ), but now 14 Nf5! wins. Whether Black takes the knight or not White will play Kc6, and even $14 \ldots \mathrm{Nb} 6+15 \mathrm{Kc} 6 \mathrm{Nc} 816 \mathrm{~Kb} 7$ is no help. Notice the curious way the White king performs a complete circuit b7-c8-d7-c6b7 around the pawn. The alternative idea 11 Nb 4 (intending $12 \mathrm{Nd} 5+$ and 13 Kc 6 ) fails to $11 \ldots \mathrm{Nd} 6+12 \mathrm{Kc} 6 \mathrm{Nc} 813 \mathrm{Kd} 7$ ( $13 \mathrm{Nd} 5+\mathrm{Kf} 314$ Nb6 g4 leads to a drawn Q+N v Q position) $\mathrm{Nb} 6+14 \mathrm{Kd} 8 \mathrm{Ke} 4$ (stopping Nd5) with a draw.

| 11 | ...Nd6 |
| :---: | :---: |
| 12 Nd 4 | g4 |
| $13 \mathrm{Nb5}$ | g3 |
| $14 \mathrm{~N} \times \mathrm{d} 6$ | g2 |
| $15 \mathrm{c} 8=\mathrm{Q}$ | $\mathrm{g} 1=\mathrm{Q}$ |

Black needed just a few more accurate moves to be sure of a draw, but he blundered and White was granted a half-point he didn't really deserve after his mistakes at moves 1 and 11.

| 16 Qf5 + | Kg 3 |
| :--- | :--- |
| $17 \mathrm{Ne} 4+$ | $\mathrm{Kg2}$ |
| 18 | Qg4+ |

After 18...Kf1! White cannot make progress with checks (19 Qf3+ Kel $20 \mathrm{Qc} 3+\mathrm{Ke} 2$ ) and his king is exposed to too many checks to allow a quiet move.

| $19 \mathrm{Qh} 4+$ | Kg 2 |
| :--- | :--- |
| $20 \mathrm{Qg} 3+$ | $\mathrm{Kh1}$ |

White avoids $21 \mathrm{Nf} 2+\mathrm{Q} \times \mathrm{f} 222 \mathrm{Q} \times \mathrm{f} 2$ stalemate and delivers mate instead.


From the diagram it is hard to see how the following study can end in mate, but the solution is surprisingly clear-cut.


Forced, as $1 \ldots$ Rf6 2 Bb 2 and $1 \ldots \mathrm{Rg} 82 \mathrm{f} \times \mathrm{g} 8=\mathrm{Q}+\mathrm{K} \times \mathrm{g} 83 \mathrm{Ne} 7+$ lose at once. But after $1 \ldots \mathrm{Ra}+$ + White has a problem, since 2 Kb 2 allows $2 \ldots$ Rf6, while 2 Kb 1 drops 'the knight with check.

| $\mathbf{2} \mathbf{~ B a 3 !}$ | $\mathbf{R} \times \mathbf{a} 3+$ |
| :--- | :--- |
| $\mathbf{3} \mathbf{~ K b 2}$ | $\mathbf{R a} 2+!$ |

Not $3 \ldots \mathrm{Rb} 3+4 \mathrm{Ka} 2$, stopping the checks. Where should white head with his king to escape the barrage of checks? Going up the board doesn't work: $4 \mathrm{Kc} 3 \mathrm{Rc} 2+5 \mathrm{~Kb} 4$ ( $5 \mathrm{Kd} 4 \mathrm{Rd} 2+$ and $6 \ldots \mathrm{Rd} 8$ ) $\mathrm{Rb} 2+$ $6 \mathrm{Kc} 5 \mathrm{Rc} 2+$ and after $7 \mathrm{~Kb} 6 \mathrm{Rb} 2+$ or $7 \mathrm{Kd} 6 \mathrm{Rd} 2+$ White cannot
advance to the seventh rank without allowing a check on b7 or d 7 , followed by $\ldots \mathbf{R} \times \mathbf{f} 7$. The right plan is to head for the kingside and shelter behind the knight.

$$
4 \text { Kc1! Ral+ }
$$

Not $4 \ldots \mathrm{Rc} 2+5 \mathrm{Kd} 1$.

| $\mathbf{5}$ Kd2 | $\mathrm{Ra} 2+$ |
| :--- | :--- |
| 6 Ke 3 | $\mathrm{Ra} 3+$ |
| 7 Kf | $\mathrm{Ra} 4+$ |
| 8 Kg 5 |  |

8 Kg 3 ? $\mathrm{Rg} 4+$ and $9 \ldots \mathrm{Rg} 8$ really would draw.

$$
8 \quad \ldots \operatorname{Rg} 4+!
$$

Now the lines $9 \mathrm{Kh} 5(9 \mathrm{~K} \times \mathrm{g} 4 \mathrm{~B} \times \mathrm{f} 5+10 \mathrm{~K} \times \mathrm{f} 5 \mathrm{Kg} 7$ draws) Rg 8 and 9 Kf 6 Rg 810 Ne 7 Rd 8 only give White half a point.

$$
9 \text { Kh6! Rg8 }
$$

Or $9 \ldots \mathrm{Rg} 6+10 \mathrm{~K} \times \mathrm{g} 6 \mathrm{~B} \times \mathrm{f} 5+11 \mathrm{Kh} 6$ winning.

$$
10 \text { Ne7 } \quad \text { Be6 }
$$

Black had no choice as the rook must cover f 8 and g 6 .
$11 \mathrm{f} \times \mathrm{g} 8=\mathrm{Q}+\quad \mathrm{B} \times \mathrm{g} 8$
12 Ng 6 mate!

The rest of the chapter is in the nature of light entertainment. The next three positions show mate simplifying a technical task.


Moldojarov-Samocanov, USSR 1974

Bearing in mind the principle that one should never win positionally when mate is available, White continued

## 1 Rg6!

Probably not the only move to win, but by far the simplest.
1
... 44
If $1 \ldots \mathrm{Be} 2$ (to free the king by $\ldots \mathrm{Bg} 4$ ) $2 \mathrm{Ke} 3 \mathrm{Bg} 43 \mathrm{Kf4} 444 \mathrm{Rd} 6$ (with the idea of 5 Rd 3 and $6 \mathrm{Rh} 3+$ !) Be 25 Rd 2 and mate occurs after all upon $5 \ldots \mathrm{Bf} 16 \mathrm{Rf} 2 \mathrm{Bc} 47 \mathrm{Rf} 3$ Be6 $8 \mathrm{Rh} 3+$ !.

2 Ke3!
The most accurate, preventing ...Be2.

| 2 | ...a3 |
| :---: | :---: |
| $3 \mathrm{Kf4}$ | a2 |
| 4 Rg 3 | Be6 |
| $5 \mathrm{Rh3}+$ | B $\times$ h3 |



1
...Kg6
White was threatening $2 \mathrm{R} \times \mathrm{h} 6$, for example $1 \ldots \mathrm{a} 52 \mathrm{R} \times \mathrm{h} 6$ a4 3 h 4 a3 4 h5 a2 5 Rg6, forcing mate. If $1 \ldots$ Rb7 (intending ...Rb3+) 2 Rf8 + Kg6 3 Rf6 + and $4 \mathrm{R} \times \mathrm{e} 6$ wins comfortably.

| 2 | Re8 |
| :--- | :--- | :--- |
| 3 | h4! |

White correctly decides to play for mate. Black cannot reply 3...h5 owing to 4 Rg 8 .

| 3 | $\ldots a 5$ |
| :--- | ---: |
| $4 \mathrm{h5}$ | a4 |
| $5 \mathrm{Rh8}$ | a3 |

Poor Black can only move his a-pawn.


Shamkovich-Visier, Palma de Mallorca 1967
Black has sacrificed a rook but in return has a very dangerous threat of mate on h2. But it is White to move and he strikes first with his own mating attack!

$$
1 \mathrm{~g} 5+!
$$

$1 \mathrm{~K} \times \mathrm{h} 4$ allows mate in two, while $1 \mathrm{Rf} 2 \mathrm{R} \times \mathrm{f} 22 \mathrm{Bg} 2$ is a clear draw, so this is the only move. If Black retreats the mating threat disappears so the reply is forced.


2 Rf2 still only drew, but this is instantly decisive due to the unavoidable check (mate) on f3.

We finish the chapter with a selection of unfortunate accidents which have befallen various people over the years. It is likely that many of these disasters were the result of 'chess blindness'-simply not bothering to look for a mate in the endgame.

With his two bishops and active king White must have been feeling happy and his next move carries the dual threats of 2 Bf 5 and 2 $\mathrm{B} \times \mathrm{h} 7$.


Donner-Spanjaard, Holland 1961
White is a clear piece up and might well have been annoyed that Black hadn't already resigned. It is true that after 1 Rf7+ followed by 2 h6 Black would have more than a little trouble continuing the game. But Donner decided on a different plan.

## 1 Rha7

Mopping up the a-pawn, Black's only potential counterplay ...


White is on the defensive, but $1 \mathrm{Qd} 8+\mathrm{Kf7} 2 \mathrm{~g} 4$ would have offered some drawing chances.

$$
1 \mathrm{~g} 4 ? \quad \mathrm{Nd} 5!
$$

With a threat which White doesn't notice. But there were no good


Bellon-S. Garcia, Capablanca Memorial, Cuba 1976
moves: $2 \mathrm{Qe} 1 \mathrm{Nf} 4+3 \mathrm{Kg} 3 \mathrm{Rg} 2+4 \mathrm{Kf} 3 \mathrm{f} \times \mathrm{g} 4+5 \mathrm{Ke} 3 \mathrm{Re} 2+$ or 2 Kg 3 $\mathrm{Rg} 2+!3 \mathrm{Kf} 3 \mathrm{f} \times \mathrm{g} 4+$, winning the queen, or $2 \mathrm{Od} 4 \mathrm{Nf4}+3 \mathrm{Kg} 3 \mathrm{Ne} 2+$. The only move not to lose at once is 2 Qal! but after $2 \ldots \mathrm{Nf} 4+3 \mathrm{Kg} 3$ $\mathrm{Rg} 2+4 \mathrm{Kf} 3 \mathrm{f} \times \mathrm{g} 4+5 \mathrm{Ke} 4 \mathrm{Re} 2+6 \mathrm{Kd} 4 \mathrm{R} \times \mathrm{h} 2$ Black would not have much trouble winning.


If $3 \mathrm{Q} \times \mathrm{d} 5 \mathrm{R} \times \mathrm{h} 2+4 \mathrm{~K} \times \mathrm{h} 2 \mathrm{e} \times \mathrm{d} 5$ wins. $2 \ldots \mathrm{Rg} 2$ ! would also have been the answer to 2 Qf1.


Prokes-Balogh, The Hague Olympiad 1928

Of course this position is quite drawn and by simply playing sensible moves Black can hold it easily. Black's defeat in this game was a direct result of indulging in unnecessary tactics.

| 1 | $\ldots R b 1+$ |
| :--- | ---: |
| $\mathbf{2} \mathbf{~ K c 3}$ | Rc1+ |
| $\mathbf{3} \mathbf{~ K b 2}$ | Kb5? |

3...Rg1 or any sensible move would have drawn. Black's 3... Kb5 was intended to force 4 Ra , when $4 \ldots \mathrm{Rc} 4$ wins the pawn. But Black has forgotten something.

$$
\begin{array}{lll}
\text { 4 Ra5+! } & & K \times b 4 \\
5 \text { Rha3! } & & \\
& 1-0 &
\end{array}
$$

The twin threats of $6 \mathrm{~K} \times \mathrm{cl}$ and 6 R 3 a 4 mate win a rook.
'Some you win, and some you lose . . .' as Sinagin might have said after producing the following pair of games.


Borisenko-Simagin, Moscow 1955

$$
1
$$

...Qf1+
White has an extra outside passed pawn, but his king is very exposed and this factor enables Black to hold the draw. For example, after $1 \ldots \mathrm{Qf} 1+2 \mathrm{Kh} 2$ ( $2 \mathrm{Kh} 4 \mathrm{Qe} 2!$ threatens mate and forces a repetition) $\mathrm{Qe} 2+3 \mathrm{Kg} 1 \mathrm{Qe} 1+4 \mathrm{Kg} 2 \mathrm{Qe} 2+5 \mathrm{Qf} 2 \mathrm{Qe} 4+6 \mathrm{Kh} 2 \mathrm{Qc} 4!$ there is no way White can improve his position. White chooses another plan to try and get his king over to the queenside to support the passed pawn, but there is a major defect.

$$
\begin{aligned}
& 2 \mathrm{Kg4} \text { ? } \\
& \mathbf{3} \mathbf{g \times f 6}
\end{aligned}
$$

Or 3 Kh4 Qh1 mate.


Black is winning. for example L. K12 2 Qf6+ Of3 3 Od4 (or 3 Oht+ Kf1, followed by ..e2) Kf1, when White has no more checks and the pawn advances. The game continuation was rather more abrupt:

| $\mathbf{1}$ | $\ldots$ e2?? |
| :--- | ---: |
| $\mathbf{2} \mathrm{Qg} 1+$ | $\mathrm{Kd2}$ |
| $\mathbf{3} \mathrm{Qc} 1+$ | $\mathrm{Kd3}$ |
| $\mathbf{4} \mathrm{Qc} 3$ mate |  |

## 2 Stalemate

One might imagine that stalemate would be far more common in endgames than mate. After all, stalemate plays a large part in the ordinary theory of endings ( $K+P \vee K$, for example, or $Q \vee P$ on the seventh) and stalemate is only likely to occur in endgames, when there are few pieces on the board. Yet in fact examples of stalemate (other than the theoretical variety mentioned above) are rare. This chapter, like the last one, ends with a selection of blunders which can only be explained by one player forgetting that stalemate was possible.

But to start with we have some positions in which both sides play accurately and stalemate comes in as a legitimate device for saving what would otherwise have been a hopeless position.


Titenko-Murei, Moscow 1963
White has two passed pawns, so passive defence is hopeless, e.g. 1... Rc8 2 Rc6 Kd5 3 Rc1 Ke4 4 Rc5, followed by the advance of the h-pawn. Black must try to make something of his advanced d-pawns.

$$
1 \quad \ldots \quad \ldots \mathrm{Rf} 2+
$$

Black just repeats moves after $2 \mathrm{Kd1Rf1+}$. so White must go to el

$$
2 \mathrm{Kel} \quad \mathrm{~d} 2+!
$$

If 2...Rc2 3 Re6 + ! Kf3 4 Re 7 and Black cannot promote a d-pawn, so White is free to push his h-pawn.

$$
3 K \times f 2
$$

Certainly not 3 Kdl ? Ke3! 4 Re6 +Kd 3 and Black wins.
3
4 Re6 $+\quad \ldots \mathrm{dl}=\mathbf{Q}$

Black delivers perpetual check if White promotes at once. If now $4 \ldots \mathrm{Kf} 45 \mathrm{c} 8=\mathrm{O}$ Qf3 + White escapes the checks by $6 \mathrm{Kel} \mathrm{Qg} 3+7$ Kd 2 and 8 Re 2 .

$$
\begin{array}{ll}
\mathbf{4} & \ldots K d 3 \\
5 \mathrm{c} 8=\mathrm{Q} & \mathrm{Qd} 2+
\end{array}
$$

$6 \mathrm{Kf} 3 / \mathrm{g} 3 \mathrm{Qf4}+7 \mathrm{Kg} 2 \mathrm{Q} \times \mathrm{g} 4+$ is perpetual, but why not $6 \mathrm{Kgl} \mathrm{Qd1}+$ $7 \mathrm{Kh} 2 \mathrm{Qd} 2+8 \mathrm{Kh} 3$ and wins?

| $6 \mathrm{Kg1}$ | $\mathrm{Qcl}+:$ |
| :--- | :--- | :--- |
| $7 \mathrm{Q} \times \mathrm{cl}$ | stalemate |

The next position is one of the most famous examples of stalemate, so I apologise to all those who have seen it before!


Keres-Fischer, Curacao 1962
Black has a clear plus, since White's passed pawn is firmly restrained while Black's pieces can co-operate in an attack on White's king. The immediate threat is $1 \ldots \mathrm{R} \times \mathrm{d} 7$.

$$
1 \mathrm{Kg} 2!\quad \mathrm{R} \times \mathrm{d} 7
$$

The fork $1 \ldots \mathrm{Qb} 2+2 \mathrm{Kh} 3 \mathrm{Qf} 2$ looks strong, but after $3 \mathrm{Be} 4!\mathrm{Q} \times \mathrm{f} 1+$ 4 Bg 2 Qf2 (preventing $5 \mathrm{~B} \times \mathrm{d} 5$ ) $5 \mathrm{Qb} 4+$ ! White is at least drawing, because Black cannot allow his rook to be taken with check.

| $2 \mathrm{~B} \times \mathrm{d} 7$ | Qf2+ |
| :---: | :---: |
| 3 Kh 3 | Q $\times$ f1+ |
| $\mathbf{4 K} \times \mathbf{4}$ | g 2 |

White has no perpetual check, but there is a surprising stalemate defence.
$5 \ldots \mathrm{Kg} 76 \mathrm{Qe} 7+\mathrm{Of} 77 \mathrm{Qg} 5+\mathrm{Og} 68 \mathrm{Qe} 7+$ is a draw, but after $5 \ldots$ $\mathrm{Kf7}$ White again has just one check.

| $6 \mathrm{Qb} 3+$ | Kg 7 |
| :--- | :--- |
| $7 \mathrm{Qg} 3+$ |  |

Of course $7 \mathrm{Qb} 2 / \mathrm{c} 3+$ loses to $7 \ldots$ Off + .

$$
7 \quad \text {...Kh7 }
$$

Now White has no checks, since 8 Bf5 $+\mathrm{Q} \times \mathrm{f} 59 \mathrm{Q} \times \mathrm{g} 2 \mathrm{Qf4}+10 \mathrm{Qg} 4$ (10 Kh3 Qh6 + and 11..Qg6+ exchanges queens and wins since the Black king reaches the fourth rank) $\mathrm{Q} \times \mathrm{g} 4+11 \mathrm{~K} \times \mathrm{g} 4 \mathrm{Kg} 6$ gains the opposition and wins.

$$
8 \text { Qe5! } \quad \text { Qh1 }+
$$

After $8 \ldots \mathrm{Qf} 2+9 \mathrm{Kh} 3 \mathrm{gl}=\mathrm{Q}(9 \ldots \mathrm{gl}=\mathrm{N}+10 \mathrm{Kg} 4$ is harmless $) 10$ Bf5 $+\mathrm{Kh} 6(10 \ldots \mathrm{Q} \times f 511 \mathrm{Q} \times 55+\mathrm{Qg} 612 \mathrm{O} \times \mathrm{g} 6+\mathrm{K} \times \mathrm{g} 613 \mathrm{Kg} 4$ and now White has the opposition, enabling him to draw) 11 Of6 + Kh5 $12 \mathrm{Bg} 6+\mathrm{Q} \times \mathrm{g} 613 \mathrm{Qg} 5+$ both recaptures are stalemate.

## $9 \mathbf{B h 3} \quad \mathbf{Q} \times \mathbf{h 3}+$

$9 \ldots \mathrm{~g} 1=$ Q $10 \mathrm{Qh} 5+\mathrm{Kg} 711 \mathrm{Qg} 6+$ ! Kf8 12 Qf6 + Ke8 13 Qe6 + is perpetual check.

| $10 \mathrm{~K} \times \mathrm{h} 3$ | $\mathrm{~g} 1=\mathbf{Q}$ |  |
| :--- | :--- | :--- |
| $11 \mathrm{Qe7}+$ | Kh 8 |  |
| $12 \mathrm{Qf8}+$ | Kh 7 |  |
| $13 \mathrm{Qf7}+$ |  |  |
|  |  |  |
|  |  |  |

After $13 \ldots \mathrm{Qg} 714 \mathrm{Q} \times \mathrm{g} 7+\mathrm{K} \times \mathrm{g} 715 \mathrm{Kg} 3$ White can gain the opposition whenever the Black king advances to the fourth rank.


Kluger-Sandor, Hungary 1955

White threatens to play a7 and then check with his rook. Black has two possible plans to counter this. He can either defend passively, bringing his king back to the 'safe' zone consisting of the g7 and h7 squares, or he can play actively and hide the king behind the White pawn on $\mathrm{f4}$. The first plan loses: 1 ... Kf6? 2 a7 Kg7 3 f5 h4 $4 \mathrm{f} 6+\mathrm{Kf7}$ 5 Rh 8 , winning the rook.


Black also draws after 2 f5 Ra2 $+3 \mathrm{Kfl} \mathrm{Kf} 34 \mathrm{Kel} \mathrm{Re} 2+5 \mathrm{Kd} 1 \mathrm{Re} 7$ ! 6 Rh 8 (or 6 t 6 Rf 7 ) Ra 77 Rh 6 Kg 4 , winning one of the pawns.

| 2 | $\quad$..Ra2+ |
| :--- | :--- |
| 3 Kg 1 | $\mathrm{Kf} 3!$ |

Not 3...Kh3? 4 Kfl! (preventing ...Rg2+-g7), when the Black king dare not emerge from its shelter and White can just push the f-pawn.

## 4 Kh

4 f 5 still only draws after $4 \ldots \mathrm{Rg} 2+5 \mathrm{Kh} 1 \mathrm{Rg} 76 \mathrm{f} 6 \mathrm{Rf} 77 \mathrm{Kh} 2 \mathrm{~h} 48$ Kh3 Kf4 $9 \mathrm{Kg} 2 \mathrm{Kf5}$, followed by $. . \mathrm{K} \times \mathrm{f} 6$. But after 4 Kh 1 White threatens to push his f-pawn.

$$
4 \text {...h4! }
$$

Preparing the stalemate.

$$
5 \text { f5 } \quad \mathrm{Kg} 3
$$

Only now does this move become possible. White's reply is forced.

$$
6 \mathrm{Rg} 8+\quad \mathrm{Kh} 3
$$

Now $7 \mathrm{a} 8=\mathrm{Q} \mathrm{Ral}+8 \mathrm{Q} \times \mathrm{al}(8 \mathrm{Rgl} \mathrm{R} \times \mathrm{a} 8)$ is stalemate.
$7 \mathrm{Kgl} \quad \mathrm{Rg} 2+$
$8 \mathrm{R} \times \mathrm{g} 2$ stalemate
although $7 \ldots \mathrm{R} \times$ a 7 would also have drawn, so the second stalemate was not really necessary.


Gil-Erlandsson, corr., 1976
White's position looks very bad, since there is no obvious way he can bring his king in front of the b-pawn. The immediate threat is $1 \ldots \mathrm{~b} 22 \mathrm{Kc} 2 \mathrm{Ka} 2$, so the first move is forced.

$$
1 \text { Bd5 b2 }
$$

After 1...Kb4 (1...Kb2 2 Be6 and Black can only return to a3) 2 Be6 b23 Ba2 Ka34 Bb1 Kb35 Kd2 Kc46 Ba2 + White draws comfortably.

$$
2 \mathrm{Kc} 2 \quad \mathrm{~d} 3+
$$

Not $2 \ldots \mathrm{e} 43 \mathrm{~B} \times \mathrm{e} 4 \mathrm{Ka} 24 \mathrm{Kd} 2$, with an immediate draw.

$$
\begin{aligned}
& 3 \mathrm{~Kb} 1 \\
& 4 \mathrm{Bb} 3!
\end{aligned}
$$

The only move to draw. 4 Bf 3 ? loses after $4 \ldots \mathrm{e} 45 \mathrm{Be} 2$ (or 5 Bd 1 e 3 $6 \mathrm{Be} 2 \mathrm{~Kb} 37 \mathrm{Bd} 1+\mathrm{Kc} 4!8 \mathrm{~K} \times \mathrm{b} 2 \mathrm{Kd} 3$, followed by $9 \ldots \mathrm{e} 2$ and Black wins-note that $7 \ldots \mathrm{Kc} 38 \mathrm{Be} 2$ is not so good, as it is essential for Black to triangulate to lose a tempo) Kb 3 (not $5 \ldots \mathrm{e} 3$ ? 6 Bd 1, winning a pawn and drawing) $6 \mathrm{Bd} 1+\mathrm{Kc} 37 \mathrm{Be} 2 \mathrm{e} 3$ and White is in zugzwang, hence must allow $8 \ldots \mathrm{Kd} 3$.

$$
\frac{4}{5} \mathrm{Bc} 2!\quad \ldots \mathrm{e} 4
$$

Not 5 Bd1? e3 and White loses, as in the last note. But after 5 Bc 2 ! e3 6 Bd1 Black is to move and must give up a pawn.

| 5 | $\ldots \mathrm{~Kb} 4$ |
| :--- | ---: |
| $6 \mathbf{K} \times \mathrm{b} 2$ | $\mathrm{Kc4}$ |
| $7 \mathrm{Ba4}!$ | Kd 3 |

Or else 8 Kc 2 draws.
$8 \mathrm{Bb5}+$
Ke3
9 Kc 2

Of course stalemate is fairly close to mate and when setting up a stalemate one should always be careful that it is not possible for the opponent to cover that one extra square. . .


Sallay-Honfi, Hungary 1973
Black's position might look hopeless, since as soon as he runs out of tempo moves he loses the f-pawn. Nor does ...h5-h4 help, as White has the right bishop for the h-pawn.

| 1 | $\ldots h 6!$ |
| :--- | :--- |
| 2 | Bb2 |$\quad$ Kh5

A neat idea: $3 \mathrm{~K} \times \mathrm{f} 5 \mathrm{a} 1=\mathrm{Q} 4 \mathrm{~B} \times$ al stalemate, while otherwise Black just oscillates with his king between $g 6$ and h 5 . White can try to creep round the back with his king, but after $3 \mathrm{Ke5} \mathrm{Kg5} 4 \mathrm{Ba} 1 \mathrm{Kg} 65 \mathrm{Kc} 6$ Kg 56 Be 5 (of course 6 Kf 7 f 4 is quite drawn) Kg 67 Bf 6 h 5 ! (if Black persists with his stalemate idea by 7...Kh5? he loses after 8 Kf 7 f 4 $9 \mathrm{~g} \times \mathrm{f} 4 \mathrm{~g} 310 \mathrm{~h} \times \mathrm{g} 3 \mathrm{Kg} 411 \mathrm{Kg} 6 \mathrm{~K} \times \mathrm{g} 312 \mathrm{f} 5 \mathrm{Kg} 413 \mathrm{Be} 5 \mathrm{~h} 514 \mathrm{f} 6$ and promotes first) 8 Bb 2 (Black threatens to make a passed pawn by $\ldots \mathrm{h} 4, \ldots \mathrm{~h} \times \mathrm{g} 3$ and $\ldots \mathrm{f} 4$, so White must prepare to bring his king back to e5) $\mathrm{Kg} 59 \mathrm{Ke} 5(9 \mathrm{Bcl}+$ only repeats) $\mathrm{h} 410 \mathrm{Bd} 4 \mathrm{~h} \times \mathrm{g} 311 \mathrm{~h} \times \mathrm{g} 3$ $\mathrm{f} 412 \mathrm{~g} \times \mathrm{f} 4+\mathrm{Kh} 4$ ! $13 \mathrm{f} 5 \mathrm{~g} 314 \mathrm{f} 6 \mathrm{~g} 215 \mathrm{f} 7 \mathrm{~g} 1=\mathrm{Q} 16 \mathrm{f} 8=\mathrm{Q}$ the result is only a draw. Since White cannot win by normal means he sets a trap. . .

$$
3 \text { h } 3 \quad g \times h 3 ? ?
$$

Disaster! Black could have drawn by $3 \ldots \mathrm{Kg} 6!4 \mathrm{~h} \times \mathrm{g} 4$ (4 h4 Kh5 5 Ke5 Kg 6 is a draw, as White can never advance to the sixth rank with his king for fear of f4) $\mathrm{f} \times \mathrm{g} 45 \mathrm{~K} \times \mathrm{g} 4 \mathrm{~h} 5+6 \mathrm{Kf4} \mathrm{Kh6} 7 \mathrm{Kf} 5$ (the only way to prevent Black's king from moving between g6 and h6) h 4 ! $8 \mathrm{~g} \times \mathrm{h} 4 \mathrm{Kh} 5$, picking off White's last pawn.

$$
4 K \times f 5
$$

No longer stalemate!

| 4 | $\ldots h 2$ |
| :--- | :--- |
| $5 \mathrm{Bf6}$ | $\quad \mathrm{~h} 1=\mathrm{Q}$ |
| 6 g 4 mate |  |

In the next position White's stalemate trap succeeds. but only with some help from his opponent.


Honfi-Lengyel, Hungary 196.3
White's problem is the terrible position of his rook. It is very hard to find any playable moves at all for White, e.g. $1 \mathrm{Ra} 5 \mathrm{Rb} 2+2 \mathrm{Ka} 3$ $\mathrm{Rb} 3+3 \mathrm{Ka} 2 \mathrm{R} \times \mathrm{c} 3$, when 4 g 7 Rg 3 is impossible and White has made no progress towards freeing his rook, or $1 a^{5} \mathrm{Bc} 6$ and there is no defence to the threat of 2 . $\mathrm{Rb} 2+3 \mathrm{Ka} 3 \mathrm{Rb} 3+4 \mathrm{Ka} 2 \mathrm{~K} \times \mathrm{c} 5$ (impossible in the original position, as White would promote his pawn at the end) or $1 \mathrm{Bb} 1 \mathrm{Rb} 2+$ or $1 \mathrm{Bh} 3 \mathrm{R} \times \mathrm{g} 6$. The move White chooses is the best practical chance.

$$
1 \text { Be8! Rb2+? }
$$

The winning line was $1 \ldots \mathrm{a} 5+!2 \mathrm{~Kb} 5 \mathrm{Rb} 2+3 \mathrm{~K} \times \mathrm{a} 5 \mathrm{~K} \times \mathrm{c} 54 \mathrm{~g} 7 \mathrm{Rb} 6!$ (threatening mate) $5 \mathrm{~B} \times \mathrm{b} 7 \mathrm{R} \times \mathrm{b} 7$ and the mate threat enables Black to win the pawn.

## 2 Ka 5 !

Not $2 \mathrm{Ka3}$ ? $\mathrm{K} \times \mathrm{c} 53 \mathrm{~K} \times \mathrm{b} 2 \mathrm{~B} \times \mathrm{c} 8$ and wins.

$$
2 \quad-\quad \ldots \mathrm{K} \times \mathrm{c} 5
$$

Even $2 \ldots \mathrm{Rg} 2$ doesn't help, due to 3 Kb 6 ! and White avoids the losing variation given above completely. Now we have the same position as in that variation, only Black has an extra pawn on a6, which unfortunately prevents the mate!

| 3 g 7 | Rg 2 |
| :--- | :--- |
| $4 \mathrm{Bg} 4!$ | $\mathrm{R} \times \mathrm{g} 4$ |
| $5 \mathrm{~g} 8=\mathrm{Q}$ | $\mathrm{R} \times \mathrm{g} 8$ stalemate |

In the following example we see a stalemate which does occur from time to time in practice.


Znosko-Buronsky - Salwe, Ostend 1907

## 1 Rh8

This draws, but the simplest line was 1 Rg7! Rh2 (1...Rb2 2 Ra 7 is also drawn) $2 \mathrm{~h} 7 \mathrm{f} 2+3 \mathrm{Kf1} \mathrm{Kf3} 4 \mathrm{~h} 8=\mathrm{OR} \times \mathrm{h} 85 \mathrm{Rh} 7$, with a perpetual attack on the Black rook-an idea which has come up in several games.

$$
1 \quad \text {...Ra2 }
$$

Allows an immediate draw, but even 1 ..Rb2 (which would prevent the draw that actually occurred in the game) 2 Ra8 Rh2 (2..f2 +3 Kf1 is also a draw) 3 Ra6 would lead to a position in which Black can make no progress ( $3 \ldots \mathrm{Kg} 3+\mathrm{Rg} 6+$ ).

| $2 \mathrm{h7}$ | $\mathrm{f} 2+$ |
| :--- | :--- |
| $3 \mathrm{Kf1}$ | $\mathrm{Kf3}$ |
| $4 \mathrm{Ra} 8!$ | $\mathrm{R} \times \mathrm{a} 8$ |
| $5 \mathrm{~h} 8=\mathrm{Q}$ | $\mathrm{R} \times \mathrm{h} 8$ stalemate |

although had Black played 1. Rb2 this line would have allowed 5...Rbl mate.

Time for a study! The harmless-looking initial position disguises the complications to come.

H. Mattison, Rigaer Tageblatt 1914

## 1 Rg8!

Not 1Kc4? f2 2 Rf 1 (2 Ra1+ transposes) Rf3 $3 \mathrm{Ra} 1+$ ( $3 \mathrm{Kd5} \mathrm{~Kb} 5$ 4 Ke 4 Rf 7 and now both $5 \mathrm{Ke} 3 \mathrm{~B} \times \mathrm{d} 6$ and 5 d 7 Be 76 Kd 3 Rf 87 Ke 2 Bc5 win for Black) Ra3 $4 \mathrm{Rf1} \mathrm{Ra} 25 \mathrm{~d} 7, \mathrm{Be} 76 \mathrm{Kd} 3 \mathrm{~Kb} 57 \mathrm{Ke} 3 \mathrm{Bh} 4$ and as $8 \mathrm{~d} 8=\mathrm{Q} \mathrm{B} \times \mathrm{d} 89 \mathrm{R} \times \mathrm{f} 2$ loses to $9 \ldots \mathrm{Bb} 6+$ Black can follow up with $8 \ldots \mathrm{Kc} 6$ and consolidate his material advantage.

Or $1 \ldots \mathrm{Rc} 3+(1 \ldots \mathrm{Bh} 6$ ? 2 Kc 4 threatens mate and the rook) 2 Kd 5 ! ( 2 Kd 4 ? Rc8! wins after both $3 \mathrm{~d} 7 \mathrm{Bc} 5+$ and $3 \mathrm{Rg} 3 \mathrm{f} 24 \mathrm{Rf} 3 \mathrm{~B} \times \mathrm{d} 6$ ) $\mathrm{Rc} 8(2 \ldots \mathrm{Rd} 3+3 \mathrm{Ke} 4) 3 \mathrm{Rg} 3 \mathrm{f} 24 \mathrm{Rf} 3$, winning the pawn.

$$
2 \text { Kc4 Rc3+! }
$$

The only way to play for a win, as $2 \ldots \mathrm{Rd} 4+3 \mathrm{~K} \times \mathrm{d} 4 \mathrm{f} 2$ allows 4 $\mathrm{Ra} 8+$ and 5 Ra 1 .

| $\mathbf{3} \mathbf{K} \times \mathbf{c} \mathbf{3}$ |  |
| :--- | :--- |
| $\mathbf{4} \mathbf{R g 4} \mathbf{+}$ | $\mathbf{f 2}$ |

Avoiding $4 \mathrm{Ra} 8+\mathrm{Kb} 55 \mathrm{Ra} 1 \mathrm{Be} 5+6 \mathrm{Kd} 3 \mathrm{~B} \times \mathrm{a} 17 \mathrm{Ke} 2 \mathrm{Bd} 4$ and wins.

4
...Ka3
If the Black king moves to the fifth rank then $5 \mathrm{Rg} 5+$ and 6 Rf 5 . But now White has no checks and 5 Rg 8 loses to $5 \ldots \mathrm{Bb} 4+6 \mathrm{Kc} 2 \mathrm{fl}=\mathrm{Q}$ $7 \mathrm{Ra} 8+\mathrm{Ba} 5$.

| $\mathbf{5}$ Rg5! | Bb4+ <br> $\mathbf{6}$ Kc2 |
| :--- | :--- |
| $\mathbf{f 1}=\mathrm{Q}$ |  |

Or else $7 \mathrm{Rf5}$, but $6 \ldots \mathrm{fl}=\mathrm{R}$ would be a better practical chance!

$$
7 \text { Ra5+ } \quad B \times a 5 \text { stalemate }
$$

A mid-board stalemate in a practical game must be a very unusual event, the Titenko-Murei example at the start of this chapter being the only one I know of from a master game.

The type of ending which gives rise to most stalemates is undoubtedly the queen and pawn ending. In the next four positions we can see most of the typical tricks available.


## 1 g 6

White has a clearly winning position, so there is no real need to play a risky move like this, but if followed up correctly there is nothing wrong with it.

| 1 | ...Qd3+ |
| :---: | :---: |
| 2 Kg 4 ? | Q $\times \mathrm{g} 6+$ |
| $3 \mathrm{Qg5}$ |  |

White has assumed that this forced the exchange of queens, but alas. . .

## 3 ...Kh8:

and White is left playing $\mathrm{Q}+\mathrm{fP}$ v Q in a drawn position with the opposing king nearly in front of the pawn. The game did indeed end in a draw. White should have played 2 Kh 4 ! when after $2 \ldots \mathrm{Q} \times \mathrm{g} 63$ Qg5 Kh8! 4 Oh5 + ! the exchange really is forced and White wins. In the game, of course, this was impossible as the queen was pinned.

White's mistake in the next position was rather more subtle.


Podgajets-Klovan, USSR 1969

$$
1 \mathrm{Qc} 7+?
$$

White is two pawns up, but he is not clearly winning since it is hard to hold on to the pawns while at the same time preventing perpetual check. The best line seems to be $1 \mathrm{Oa} 6+\mathrm{Kb} 42 \mathrm{~b} 6 \mathrm{Kc5}$ ! (there is no point in checking at the moment, as the White king hides on a7, enabling the pawn to advance to b7) 3 a5 ( 3 Ob5 + Kd6 4 b7 Qf3+ 5 Kg 6 Qg4 + is a draw, since Black can exchange queens if White interposes) Kd6 (now the White king's escape route to the queenside is cut off, so Black is threatening perpetual check) 4 Qc4! (4 b7+ Kc7 5 Qb5 Qf3+ and $6 \ldots \mathrm{Q} \times \mathrm{b} 7$ draws) and Black cannot give perpetual, e.g. $4 \ldots \mathrm{Qf} 3+5 \mathrm{Kg} 6 \mathrm{Qg} 3+6 \mathrm{Kf5} \mathrm{Qh} 3+(6 \ldots \mathrm{Qe} 5+7 \mathrm{Kg} 4$ $\mathrm{Q} \times \mathrm{a} 58 \mathrm{~b} 7 \mathrm{Qb} 69 \mathrm{~b} 8=\mathrm{Q}+!\mathrm{Q} \times \mathrm{b} 810 \mathrm{Qf4}+$ wins) $7 \mathrm{Kg} 5 \mathrm{Qg} 3+8 \mathrm{Qg} 4$ Qe5 + 9 Qf5 Qg3 + $10 \mathrm{Kh} 5 \mathrm{Qh} 2+11 \mathrm{Kg} 6 \mathrm{Og} 2+12$ Qg5 Qe4+ 13 $\mathrm{Kg} 7 \mathrm{Qb} 7+14 \mathrm{Kh} 6 \mathrm{Qh} 1+15 \mathrm{Qh} 5 \mathrm{Qel}+16 \mathrm{Kh} 7$ and the checks come to an end. This is not conclusive proof that White wins after 1 Qab+, but this move offers much better chances than 1 Qc7 +? when Black can force the draw immediately.

| 1 | $\ldots$ K $\times$ a4 |
| :--- | :--- |
| 2 b 6 | Ka5! |

The surprising point! Instead of giving a series of futile checks which would only drive the king over to support the pawn, Black encourages White to promote.

| $3 \mathrm{b7}+$ |
| :--- |
| $4 \mathrm{b8}=\mathrm{N}+$ |$\quad$ Ka6

White had 10 advance his pawn since otherwise he would just lose it, but $4 \mathrm{~b} 8=\mathrm{Q}$ Qe6 + $5 \mathrm{Kg} 7 \mathrm{Qh} 6+6 \mathrm{Kg} 8 \mathrm{Qh} 8+7 \mathrm{Kf} 7 \mathrm{Qf6}+$ is perpetual check or stalemate; hence the knight, but White still has no winning chances.

The stalemate is very well hidden in the next example and one would have to be very astute to avoid falling into it.

L. D. Evans-Haik, London 1978

| 1 |
| :--- |
| $2 \mathrm{~d} 6+?$ |$\quad .. \mathrm{b} 2$

Amazingly this natural move throws away the win. The correct continuation was $2 \mathrm{Qe} 7+!$ and then:
(A) $2 \ldots \mathrm{Ka} 8 / \mathrm{b} 8 / \mathrm{c} 83 \mathrm{Qe} 8+\mathrm{Kc} 74 \mathrm{~h} 8=\mathrm{Q} \mathrm{Q} \times \mathrm{h} 8+5 \mathrm{Q} \times \mathrm{h} 8 \mathrm{bl}=(26$ Qe5 +! Kd7 (or 6...Kb7 7 Qe7+Kb68 Od6+ Ka5 9 Qc7+ Ka6 10 d6 and the pawn advances to the seventh) 7 Qe6 +Kd 88 Qd6 +Ke 8 (8..Kc8 9 Qc6 + and if $9 \ldots \mathrm{~Kb} 8$ then $10 \mathrm{Qe} 8+\mathrm{Kc} 711 \mathrm{Qe} 7+$ and 12 d6) 9 Oc6 $+\mathrm{Kd8}(9 \ldots \mathrm{Kf7} 10 \mathrm{Qc} 7+$ ) $10 \mathrm{Qa} 8+$, picking up the a-pawn with check.
(B) $2 \ldots \mathrm{Ka} 63 \mathrm{Qd} 6+\mathrm{Kb} 7(3 \ldots \mathrm{~Kb} 54 \mathrm{Ob} 8+\mathrm{Ka} 65 \mathrm{~h} 8=\mathrm{Q} \mathrm{Q} \times \mathrm{h} 8+6$ $\mathrm{Q} \times \mathrm{h} 8 \mathrm{~b} 1=\mathrm{O} 7 \mathrm{~d} 6$ and $3 \ldots \mathrm{Ka} 54 \mathrm{Qd} 8+\mathrm{Ka} 45 \mathrm{~h} 8=\mathrm{Q}$ lead to winning queen endings) $4 \mathrm{Qd} 7+\mathrm{Ka} 6(4 \ldots \mathrm{~Kb} 65 \mathrm{Qd} 8+) 4 \mathrm{Oc} 6+\mathrm{O} \times \mathrm{c} 65 \mathrm{~d} \times \mathrm{c} 6$ $\mathrm{b} 1=\mathrm{Q} 6 \mathrm{~h} 8=\mathrm{Q}$ and once again White should win.

2
...Ka6!
Setting up the stalemate.

| 3 d 7 | $b 1=\mathrm{Q}:$ |
| :--- | :--- |
| $4 \mathrm{Q} \times \mathrm{b1}$ | Qe5 + |

Surprisingly Black can now deliver perpetual check or force stalemate; however, he must be careful to check from the correct square or White escapes. The following chart of corresponding squares gives the appropriate responses:

$$
\begin{array}{ll}
\text { WK posituon } & B Q \text { checks from } \\
\mathbf{6 6}, \mathbf{1} \mathbf{1} \mathbf{f} \mathbf{2} & \mathbf{f 8}
\end{array}
$$

| g1, e3, c3, h5 | c5 |
| :---: | :---: |
| g3, g6, d1 | d6 |
| d2, g4 | b4 |
| a2, a3 | a4 |
| e1, h4 | b4 or e7 |
| e2, g5 | e7 |
| h1 | h5 |
| h2 | e5 |
| h3 | e6 |
| f5 | d7 |
| d4 | f6 |
| c1 | $f 4$ |
| c2 | c5 or e4 |
| b2 | d4 |
| b3 | d5 |
| f3 | c3 or f8 |

The only way to avoid the checks given above is to play g3 or g4 at some point, but both of these moves allow a straightforward perpetual check. In the game White did not put Black completely to the test as he overlooked the stalemate!

| 5 Kh1 | Qh5 + |
| :--- | :--- |
| 6 Kg1 | Qc5+ |
| 7 Kf1 | Qc4+?! |

The simplest was 7...Qf8+! as given above.

## 8 Ke1?

8 Kf 2 ! was a much better move, as it is hard for Black to regain the correspondence.

$$
\begin{aligned}
& 8 \\
& 9 \\
& \text { Q } \times \text { b4 } \text { stalemate }
\end{aligned}
$$

The next position is a draw even without the stalemate idea, but it did avoid playing a few extra sessions!


Sigurjonsson-Miles, Hastings 1975/6
The last pawn move or capture was 32 moves ago, so both sides must have been getting rather bored by now. If White genuinely wanted to play on he should have tried 1 Kd 7 or 1 Kb 7 , but he probably wasn't too dismayed to allow a quick draw!

$$
\begin{aligned}
& 1 \text { Qd6?! Qc4+! } \\
& 2 \text { Qc6+ }
\end{aligned}
$$

Or $2 \mathrm{Kd} 8(2 \mathrm{~Kb} 6 / \mathrm{b} 7 / \mathrm{b} 8 \mathrm{Qb} 5+$ or $2 \mathrm{Kd} 7 \mathrm{Qg} 4+) \mathrm{Qh} 4+$ and the pawn is lost.

## 2 ...Ka5

Now White's reply is forced as $3 \mathrm{~Kb} 7(3 \mathrm{Kd} 7 \mathrm{Qf} 7+$ ) $\mathrm{Qb} 3+4 \mathrm{Ka} 8$ ( $4 \mathrm{Kc} 7 / \mathrm{a} 7 \mathrm{Qf} 7+$ or $4 \mathrm{Kc} 8 \mathrm{Qh} 3+$ ) $\mathrm{Qg} 8+5 \mathrm{~Kb} 7 \mathrm{Qb} 3+$ is an immediate perpetual check.

| $3 \mathbf{h 6}$ | Qf7+ |
| :--- | :--- |
| $\mathbf{4}$ Qd7 |  |

Or $4 \mathrm{~Kb} 8 \mathrm{Qf} 8+5 \mathrm{~Kb} 7 \mathrm{Qb} 4+6 \mathrm{Kc} 7 \mathrm{Qe} 7+7$ Qd7 Qc5 + 8 Qc6 (otherwise Black wins the pawn with $8 \ldots \mathrm{Qb6}+$ or $8 \ldots \mathrm{Qf} 8+$ ) $\mathrm{Qe} 7+$, with a draw.
$5 \mathrm{~Kb} 8 \quad$...Qc4+
$5 \mathrm{Kd} 8 \mathrm{Qh} 4+$ or $5 \mathrm{~Kb} 7 \mathrm{Qa} 6+$.

| 5 | ...Qb4+ |
| :---: | :---: |
| $6 \mathrm{Kc8}$ | Qc5+! |
| $7 \mathrm{Qc} 7+$ | Ka6 |

This repeat of the previous manoeuvre forces the reply, as 8 Kb 8 $\mathrm{Qb} 4+9 \mathrm{Kc8} \mathrm{Qf8}+$ wins the pawn.

8 h7 Qf8+

White can only avoid the perpetual at the cost of losing his h-pawn.
We end with a small group of positions featuring gross swindles.


Goldstein-Shamkovich, Moscow 1946
Black is quite lost, since White threatens $2 \mathrm{c} 7+$ and 3 Bf5 + , while if $1 \ldots$ Rcl White wins the rook with check and then takes the g-pawn.

$$
1 \quad \ldots \mathrm{RdI}+
$$

Looks like a spite check, but actually sets a neat trap!

## 2 Kes?

After $2 \mathrm{Ke} 3!\mathrm{g} \times \mathrm{f} 3(2 \ldots$ Re1 $+3 \mathrm{Kf} 2) 3 \mathrm{c} 7+\mathrm{Kc} 84 \mathrm{Bf} 5+\mathrm{Rd} 75 \mathrm{~K} \times \mathrm{f} 3$ White wins, but now Black is able to draw.

$$
2 \quad \ldots g \times f 3!
$$

Not $2 \ldots \mathrm{~g} 3$ ? $3 \mathrm{c} 7+\mathrm{Kc} 84 \mathrm{Bf} 5+\mathrm{Rd} 75 \mathrm{Bh} 3 \mathrm{~g} 26 \mathrm{~B} \times \mathrm{g} 2 \mathrm{Rh} 7$ (or else Bh3) 7 Bfl and wins.
$3 \mathrm{~B} \times \mathrm{f} 3$
$3 \mathrm{c} 7+\mathrm{Kc} 84 \mathrm{Bf} 5+\mathrm{Rd} 75 \mathrm{Bh} 3 \mathrm{f} 2$, followed by $6 \ldots \mathrm{fI}=\mathrm{Q} 7 \mathrm{~B} \times \mathrm{fI} \mathrm{R} \times \mathrm{c} 7$, is also just a draw.

3 ...Rd7!
But not $3 \ldots$ Rcl? 4 Kd 6 and White wins.
4 Bd5
White intends $4 \ldots \mathrm{Kg} 7$ (for example) $5 \mathrm{Kd} 6 \mathrm{Rg} 6+6 \mathrm{Be} 6$ and wins.
4

$$
{ }_{\frac{2}{2}-\frac{1}{2}}^{\cdots R b 7!}
$$

since $5 \mathrm{Kd} 6 \mathrm{R} \times$ b6 pins the pawn.


Reshevsky-Geller, Zurich 1953
A famous example. Reshevsky, two pawns up, was probably expecting Geller to resign, but a carcless move made the win difficult and then two more made it impossible!

## 1 Kg 3 ?

Now the pawns become blockaded. The obvious 1 g 4 was much better.

| 1 | ...Kg6 |
| :---: | :---: |
| 2 Ra 3 | f5 |
| $3 \mathrm{Ra6}+$ ? |  |

Rather unnecessary. At once 3 Ra8! intending 4 Rg8+-g5 was correct.


Now the position is a draw. White could still have won by 4 Ra ! $\mathrm{Re} 3+5 \mathrm{Kf} 2 \mathrm{Rb} 36 \mathrm{~g} 3 \mathrm{Kg} 4$ (or else 7 Rg 8 and $8 \mathrm{Rg} 5+$ ) $7 \mathrm{Rg} 8+\mathrm{Kh} 3$ 8 h5.

| 4 | ...Re3+! |
| :---: | :---: |
| 5 Kf 2 | Ra3 |
| 6 g 3 |  |

After $6 \mathrm{R} \times \mathrm{f} 5+\mathrm{K} \times \mathrm{h} 47 \mathrm{Rb} 5 \mathrm{Kg} 48 \mathrm{f} 5 \mathrm{Kg} 5$ White is tied to the defence of his pawns and can make no progress.

$$
\begin{aligned}
& 6 \\
& 7 \mathrm{Ke} 2
\end{aligned} \quad \text {...Rf3+! }
$$

Or $7 \mathrm{Kg} 2 \mathrm{R} \times \mathrm{g} 3+$.

$$
7 \quad \ldots \mathbf{R} \times \mathrm{g} 3
$$

and the game concluded $8 \mathrm{R} \times \mathrm{f} 5+\mathrm{K} \times \mathrm{h} 49 \mathrm{Kf} 2 \mathrm{Ra} 310 \mathrm{Rg} 5 \mathrm{Rb} 311$ Rg1 Kh5 12 Ke 2 Ra 313 f5 Ra5 $\frac{1}{2}-\frac{1}{2}$.

The next position must take first prize, however!


Menas-Braunstein, Bucharest 1960
Black could well resign with a clear conscience, but he cheekily continues to play.

| $\mathbf{1} \mathbf{b 7}$ |  |
| :--- | :--- |
| $2 \mathbf{b 8}=\mathbf{Q}$ | Ne 3 |
| $\mathbf{3} \mathbf{K g 1}$ | $\mathrm{Nf1}+$ |
|  |  |

$3 \mathrm{Kh} 1 \mathrm{Ng} 3+4 \mathrm{Kg} 1 \mathrm{Ne} 2+5 \mathrm{Kh} 2$ was quite good, too.

$$
3 \quad . . \mathrm{Kg} 3
$$

Black isn't actually threatening anything, but why not take some more material?

$$
4 K \times f 1
$$

Actually White has to be a bit clever here, mainly as a result of his last move $-5 \mathrm{Q} \times \mathrm{f} 4+!\mathrm{K} \times f 46 \mathrm{Kg} 2$ winning.

$$
5 \text { Qh8?? } \quad \mathrm{h} 1=\mathrm{Q}+
$$

Unfortunate.

$$
\frac{1}{2}-\frac{1}{2}
$$

## 3 Promotion

Promoting a pawn is the ultimate objective in most endings, but this is usually a gradual process of piloting a passed pawn through all sorts of obstructions and blockades until it finally reaches the eighth rank. However, the amount of material gained when the pawn reaches the other side of the board is so great that the sacrifice of a piece or rook is entirely justified if it enables the pawn to surmount the last barrier separating it from promotion.


Piasetski-Rajkovic, Stip 1977
Both sides have dangerous passed pawns and White's advantage lies in the unfortunate position of Black's king, which allows him to promote with check.

## 1 Be6!

After 1 Bc 6 , threatening $2 \mathrm{e} 8=\mathrm{Q}+$, Black simply plays $1 \ldots \mathrm{Kf6}$.

|  | $\ldots \mathrm{R} \times$ e6 |
| :---: | :---: |
| $2 \mathrm{Rb6}$ | h1 $=$ |

Loses instantly, but even $2 \ldots \mathrm{Kf5}(2 \ldots \mathrm{R} \times \mathrm{b} 63 \mathrm{e} 8=\mathrm{Q}+\mathrm{Kg} 7 / \mathrm{h} 74$ Qe7+ followed by 5 Qh 4 picks up the h-pawn, as does $2 \ldots \mathrm{Kf7} 3 \mathrm{R} \times \mathrm{e} 6 \mathrm{Ke} 8$ 4 Rh6) $3 \mathrm{R} \times \mathrm{e} 6 \mathrm{hl}=\mathrm{Q} 4 \mathrm{e} 8=\mathrm{Q}$ (Black only has two checks) Qb1+ $5 \mathrm{Kc} 3 \mathrm{Qa} 1+6 \mathrm{~Kb} 4 \mathrm{Qa} 7$ ( $6 \ldots \mathrm{~b} 2$ also leads to mate after $7 \mathrm{Qg} 6+$ ) 7 Qg6 $+\mathrm{K} \times \mathrm{f} 48 \mathrm{Rf} 6+\mathrm{Ke} 59 \mathrm{Qg} 5+\mathrm{Ke} 410 \mathrm{Qg} 4+$ (amongst others) Kd3 11 Rd6 + Ke3 12 Re6 + Kd2 13 Qf4 + Kdl 14 Qf1 + Kd2 15 $\mathrm{Qe} 1+$, followed by $16 \mathrm{Qe} 2+$ and 17 Qe 3 mate, lasts little longer.

| $3 \mathrm{e} 8=\mathrm{Q}+$ | $\mathrm{Kf5}$ |  |
| :--- | :--- | :--- |
| $4 \mathrm{Q} \times \mathrm{e} 6+$ | $\mathrm{K} \times \mathrm{f4}$ |  |
| $5 \mathrm{Qh6}+$ |  |  |

White just swops queens and pushes his pawn, the Black king being cut off by the rook's control of the sixth rank.

In the following position White makes an even heavier sacrifice to force his pawn through.


Ermenkov-Sax, Warsaw 1969
White has an unstoppable passed pawn and Black's only chance is to play for a back-rank mate.

$$
1 \mathrm{~d} 7 \quad \mathrm{~d} 3
$$

1 .. Qe7 loses to $2 \mathrm{Q} \times$ an attacking d 8 and d 2 , but now $2 \ldots \mathrm{Q} \times \mathrm{f} 1+$ is threatened. Now 2 Qb1 Qe7 3 Qe1 Re2 4 Qc3+ Kh7 5 Q $\times \mathrm{d} 3$ Qd8 6 Rd1 should win, but White chooses another good line.

## 2 Qb3 <br> Rc2

The only way to renew the threat, since $2 \ldots \mathrm{Ra} 2 / \mathrm{b} 23 \mathrm{Q} \times \mathrm{a} 2 / \mathrm{b} 2$ wins and $2 \ldots \mathrm{Qe} 7$ drops the rook after $3 \mathrm{Qc} 3+$.

## 3 Qa3

Not 3 Qb1" Qe7, but now 3..d2 loses to 4 Qal $+\mathrm{Kh} 75 \mathrm{~d} 8=\mathrm{Q}$ $\mathrm{O} \times \mathrm{f} 1+6 \mathrm{O} \times \mathrm{fl}$. However, Black has one last chance, which almost comes off.

| 3 | $\cdots \mathrm{Q} \times \mathrm{fI}+$ |
| :--- | :--- |
| $4 \mathrm{~K} \times \mathrm{fI}$ | d 2 |

Looks dangerous, but White has a surprising refutation.

$$
\begin{aligned}
& 5 \text { Q } \times \text { f3! } \quad \mathrm{RcI}+ \\
& 6 \text { Qdi! }
\end{aligned}
$$

Since after $6 \ldots \mathrm{R} \times \mathrm{dl}+7 \mathrm{Ke} 2 \mathrm{Rb} 18 \mathrm{~d} 8=\mathrm{Q} \mathrm{d} 1=\mathrm{Q}+9 \mathrm{Q} \times \mathrm{d} 1 \mathrm{R} \times \mathrm{d} 1$ $10 \mathrm{~K} \times \mathrm{d} 1$ White has an easily winning king and pawn ending. It would be interesting to know how far in advance White saw the queen sacrifice, for without it he would only draw after 5 Qf8+.

The finish of the above game bears a certain resemblance to the following combination:

van Riemsdijk--Grunfeld, Riga 1979
Again White has a dangerous pawn, but Black has some extra material. In the game Black lost through overlooking a promotion combination.

## 1 ...Bh5?

Black should have tried $1 \ldots \mathrm{R} \times \mathrm{d} 7!2 \mathrm{R} \times \mathrm{d} 7 \mathrm{Rb} 1+3 \mathrm{Kg} 2 \mathrm{f} 4$, with a very unclear position. For the moment Black is effectively just an exchange down, as the knight takes a long time to come back into play, so I feel that Black should not be worse. White may be able to draw, however, by giving up a rook for the Black pawns. With 1...Bh5? Black hoped for 2 Rd4, say. when he removes his rook from attack with gain of tempo by $2 \ldots \mathrm{Rbl}+$.

$$
2 \text { Rc8! } \quad \text { B } \times \text { d1 }
$$

Now $3 \mathrm{~N} \times \mathrm{b} 5$ ? Ke7 or $3 \mathrm{R} \times \mathrm{d} 8+\mathrm{Ke} 74 \mathrm{Nc} 6+\mathrm{Kd} 65 \mathrm{Nd} 4 \mathrm{Rb} 16$ $\mathrm{N} \times \mathrm{f} 5+\mathrm{Kc} 7$ would win for Black.

## 3 Nc6!

Depriving the Black king of the e7 square.

## 3

...Rd5
3...Rb8 $4 \mathrm{~N} \times \mathrm{b} 8 \mathrm{Ke} 75 \mathrm{Nc} 6+\mathrm{K} \times \mathrm{d} 76 \mathrm{R} \times \mathrm{d} 8+$ or $3 \ldots \mathrm{Rb} 1+\mathrm{R} \times \mathrm{d} 8+$ Kg 75 Rb 8 ( $5 \mathrm{Rg} 8+$ is also good) lose just as quickly.

## $4 \mathrm{R} \times \mathrm{d} 8+\quad \mathrm{Kg} 7$ $5 \mathrm{Rg} 8+$ <br> 1-0

The final unkind blow! After $5 \ldots \mathrm{~K} \times \mathrm{g} 86 \mathrm{Ne} 7+\mathrm{Kf} 87 \mathrm{~N} \times \mathrm{d} 5$ Black still cannot go to e7!

Even when there is very little material on the board surprises are still possible:


Hindle-Mohring, Tel-Aviv Olympiad 1964

The obvious $1 \ldots \mathrm{a} 22 \mathrm{~B} \times \mathrm{a} 2 \mathrm{~K} \times \mathrm{a} 23 \mathrm{~K} \times \mathrm{h} 6$ leads to a draw, while the attempt to defend the h-pawn by $1 \ldots \mathrm{~g} 4$ fails to $2 \mathrm{Kf5}$. Knowing that a win exists enables one to find the right move by a process of elimination, but it would not be difficult to overlook it in a game.

$$
1 \quad \ldots \text { Be3! }
$$

Threatening $2 \ldots \mathrm{~B} \times \mathrm{f} 2$, and $2 \mathrm{f} 3 \mathrm{a} 23 \mathrm{~B} \times \mathrm{a} 2 \mathrm{~K} \times \mathrm{a} 24 \mathrm{~K} \times \mathrm{h} 6$ loses to $4 \ldots \mathrm{~g} 4+$ and $5 \ldots \mathrm{~g} \times \mathrm{f} 3$.

$$
\begin{array}{ll}
2 \underset{\mathrm{f} \times \mathrm{e} 3}{\mathrm{~K} \times \mathrm{h} 6} & \mathrm{~g} 4+ \\
\end{array}
$$

Also after $3 \mathrm{Kg} 6 \mathrm{~B} \times \mathrm{f} 2$ the two passed pawns would be too much for White's bishop.

$$
3 \quad . . .93
$$

and the game concluded $4 \mathrm{Kh} 7 \mathrm{~g} 25 \mathrm{~h} 6 \mathrm{~g} 1=\mathrm{Q} 6 \mathrm{Kh} 8 \mathrm{a} 27 \mathrm{~B} \times \mathrm{a} 2 \mathrm{~K} \times \mathrm{a} 2$ $8 \mathrm{h7}$ (White loses due to the e-pawn) Qg6 9 e4 Qf7 0-1.

The next example demonstrates a rather more sophisticated promotion combination.


Nenarokov-Grigoriev, Moscow Ch. 1923
The usual result with this material is a draw, but here both Black pawns are dangerously advanced. White should still hold the halfpoint, but he needs to play very carefully.

$$
\begin{aligned}
& 1 \\
& 2 \mathrm{Kc} 3
\end{aligned} \quad . . \mathrm{Bg} 5+
$$

Giving up the exchange doesn't draw, since Black can perform an outflanking manoeuvre on the queenside, e.g. $2 \mathrm{R} \times \mathrm{g} 5+\mathrm{K} \times \mathrm{g} 53 \mathrm{Ke} 3$ Kf5 4 Bh 2 Ke 65 Bb 8 Kd 56 Bh 2 Kc 4 (threatening ...Kc3) 7 Kd 2 Bh 7 (intending $8 \ldots \mathrm{Kd} 4$, followed by ...Ke4 and ...Kf3) 8 Bg 1 Bg 6 (now White is in zugzwang and must either allow ...Kc3 or permit the king to reach g2) 9 Bh 2 Kd 4 and wins.

$$
2 \quad . . \mathrm{Be} 7
$$

Not $2 \ldots \mathrm{~d} 2$ ? $3 \mathrm{R} \times \mathrm{g} 5+$. The move played sets a fiendish trap ...

## 3 Kd2?

. . . into which White falls. The best line was 3 Bh2! Bc5 (with the plan of ... Bbo and ... Ba5 +, to set the d-pawn in motion) 4 Bc 7 (not $4 \mathrm{Rg} 3 \mathrm{Bf} 2!5 \mathrm{R} \times \mathrm{d} 3 \mathrm{~B} \times \mathrm{d} 36 \mathrm{~K} \times \mathrm{d} 3 \mathrm{Kg} 47 \mathrm{Ke} 2 \mathrm{Bg} 38 \mathrm{Bg} 1 \mathrm{Bb} 89 \mathrm{Kf} 2$ $\mathrm{Bc} 710 \mathrm{Ke} 2 \mathrm{Kg} 311 \mathrm{Kf1} \mathrm{Kf} 3$ and $12 \ldots \mathrm{Kg} 2$, or $5 \mathrm{R} \times \mathrm{h} 3 \mathrm{Belt}$ and 6...d2) Be3 (otherwise it is hard to see a constructive plan for Black) 5 Rh 8 ! (Grigoriev only gave $5 \mathrm{Rg} 7 \mathrm{Ke} 66 \mathrm{Rg} 8 \mathrm{Kd} 77 \mathrm{Rg} 7+\mathrm{Kc} 6$, followed by $8 . . \mathrm{d} 2$ wiuning) $\mathrm{Kg} 4(5 \ldots \mathrm{Bd} 4+6 \mathrm{~K} \times \mathrm{d} 4 \mathrm{~d} 2$ fails to $7 \mathrm{Rf} 8+$ and 8 Rf 1 , while $5 \ldots \mathrm{~d} 26 \mathrm{Rd} 8$ and $7 \mathrm{R} \times \mathrm{d} 2$ is a clear draw) $6 \mathrm{Rg} 8+$ $\mathrm{Kf} 37 \mathrm{Rg} 3+\mathrm{Kf} 28 \mathrm{R} \times \mathrm{h} 3 \mathrm{~d} 29 \mathrm{Rh} 2+\mathrm{Bg} 210 \mathrm{R} \times \mathrm{g} 2+\mathrm{K} \times \mathrm{g} 211 \mathrm{Kc} 2$ and 12 Ba5 drawing.

| 3 | $\ldots 8 \mathrm{Bb} 4+$ |
| :--- | :--- |
| 4 Ke 3 | d 2 |
| 5 Rd 8 |  |

White's moves were forced. Now not $5 \ldots \mathrm{Ba} 5$, due to $6 \mathrm{~B} \times \mathrm{a} 5 \mathrm{~h} 27$ Rf8+ and 8 Rf1. But Black has another move to exploit the placement of White's pieces.

$$
5 \text {...Bd6! }
$$

At a stroke, White's position becomes completcly hopeless since he must allow one of the pawns to promote.

| $6 \mathrm{R} \times \mathrm{d} 6$ |  | h2 |
| :--- | :--- | :--- |
| $7 \mathrm{R} \times \mathrm{d} 2$ |  | $\mathrm{~h} 1=\mathrm{Q}$ |

In the next position, there is no problem promoting the pawn-the difficulty lies in ensuring that the resulting position is a win.


Forintos-Roessel, Munich Olympiad 1958
The game actually concluded 1...Ke3? 2 h6 f3 $\mathbf{3} \mathbf{h 7} \mathbf{f 2}$ (3...Bd4 4 a7 $\mathbf{f 2} 5 \mathrm{a} 8=\mathrm{Q}$ is also drawn) $\mathbf{4} \mathbf{h 8}=\mathbf{Q} \mathbf{f 1}=\mathbf{Q}+\mathbf{5} \mathbf{K h} \mathbf{2}$ and after a number of checks the players agreed a draw, since Black is unable to force White's king away from the squares h1 and h2 by checking.

Black's mistake was in committing his king too early ( $1 \ldots \mathrm{Kd} 32$ Kg 4 would also have been bad).
1 h6 $\quad . . . f 3!$
$2 \mathrm{Kg} 3 \mathrm{Ke} 33 \mathrm{~h} 6 \mathrm{f} 24 \mathrm{~h} 7 \mathrm{f} 1=\mathrm{Q} 5 \mathrm{~h} 8=\mathrm{Q} \mathrm{Qg} 1+$ and $6 \ldots \mathrm{Qh} 1+$ wins.

$$
2 \text {...Kd3! }
$$

In this variation the king is better placed on d 3 to allow the bishop to check on f 2 or e3.
$\mathbf{3} \mathbf{h 7} \quad$ f2
$\mathbf{4} \mathbf{h 8}=\mathrm{Q}$

Or $4 \mathrm{Kg} 2 \mathrm{Ke} 25 \mathrm{~h} 8=\mathrm{Q} \mathrm{fl}=\mathrm{Q}+6 \mathrm{Kg} 3(6 \mathrm{Kh} 2 \mathrm{Bgl}+7 \mathrm{Kg} 3 \mathrm{Qf} 3+8$
$\mathrm{Kh} 4 \mathrm{Qh} 1+$ wins) $\mathrm{Qf} 3+$ ! (and not the carcless $6 \ldots \mathrm{Bf} 2+7 \mathrm{Kg} 4$ or $6 \ldots \mathrm{Qg} 1+7 \mathrm{Kf4}$, when in both cases the White king escapes) 7 Kh 2 $\mathrm{Qf} 2+8 \mathrm{Kh} 3 \mathrm{Qe} 3+$ ! (forcing the White king out) $9 \mathrm{Kg} 4 / \mathrm{h} 4$ ( $9 \mathrm{Kg} 2 / \mathrm{h} 2$ $\mathrm{Qg} 1+$ ) $\mathrm{Qe} 4+10 \mathrm{Kg} 3$ ( $10 \mathrm{Kg} 5 \mathrm{Be} 3+$, followed by $\ldots \mathrm{Qh} 1+$ or $\ldots \mathrm{Bd} 4+) \mathrm{Bf} 2+11 \mathrm{Kh} 2 \mathrm{Qf} 4+12 \mathrm{Kh} 1 \mathrm{Qf} 3+$ and mates in two more moves.

$$
{ }_{5}^{4} \mathrm{Kg} 4 \quad \quad . . \mathrm{f} 1=\mathrm{Q}+
$$

The lines $5 \mathrm{Kg} 3 \mathrm{Bf} 2+6 \mathrm{Kg} 4 \mathrm{Qg} 2+7 \mathrm{Kf4} / \mathrm{f} 5 \mathrm{Qe} 4+$ and $5 \mathrm{Kh} 2 \mathrm{Qg} 1+$ equally result in the loss of White's queen.

$6 \mathrm{Kf5} \mathrm{Qe} 4+7 \mathrm{Kg} 5 \mathrm{Be} 3+$ is similar.

${ }_{7}^{6} \quad$| Kf5 | ...Be3+ |
| ---: | :--- |
| Qe4+ |  |

picking up the queen with a skewer.
The following study also features an interesting duel after both sides promote, which ends in a surprising finale.

G. N. Zakhodyakin. 1/2 Pr., 64 1939/40

$$
1 \mathrm{~g} 7 \quad \text { h2 }
$$

White wins more easily after $1 \ldots$ Rg 8 ( $1 \ldots$ Rc8 is even worse, since $2 \mathrm{~K} \times \mathrm{h} 3$ threatens Bf8 and so forces $2 \ldots \mathrm{Rg} 8$ ) $2 \mathrm{~K} \times \mathrm{h} 3 \mathrm{~K} \times \mathrm{c} 73 \mathrm{Bf} 6$ $\mathrm{Kd} 74 \mathrm{Kh} 4 \mathrm{Ke} 65 \mathrm{Kh} 5 \mathrm{Kf} 76 \mathrm{Kh} 6 \mathrm{Rc} 87 \mathrm{~K} \times \mathrm{h} 7 \mathrm{Ra} 88 \mathrm{Bb} 2$, followed by $9 \mathrm{~g} 6+$ and $10 \mathrm{~g} 8=\mathrm{Q}$.

$$
\begin{aligned}
& 2 \mathrm{~g} \times \mathrm{h} 8=\mathrm{Q} \quad \mathrm{~h} 1=\mathrm{Q}+ \\
& 3 \mathrm{Kg} 3
\end{aligned}
$$

3 Kg 4 ? Qe4 $+4 \mathrm{Kh} 5 \mathrm{Qg} 6+5 \mathrm{Kg} 4 \mathrm{Qe} 4+6 \mathrm{Kg} 3 \mathrm{Qe} 3+$ is immediate
perpetual check.

Somehow White has to evade the barrage of checks. Can this be done by marching over to the queenside? After $4 \mathrm{Kf} 3 \mathrm{Qf1}+5 \mathrm{Ke} 3$ Oel + $6 \mathrm{Kd} 3 \mathrm{Qd1}+7 \mathrm{Kc} 4$ (White must avoid c 3 and d4) $\mathrm{Od} 5+8 \mathrm{~Kb} 4 \mathrm{Qe} 4+$ $9 \mathrm{Ka} 3 \mathrm{Qf} 3+10 \mathrm{Ka} 2 \mathrm{Qd} 5+$ Black just keeps checking along the d5h1 diagonal and White can never interpose his queen. The only other possibility for avoiding the perpetual is to advance the king up the board.

| $4 \mathrm{Kf4}$ | Qf1 + |
| :--- | :--- |
| 5 Kg 4 |  |

After $5 \mathrm{Ke} 4 \mathrm{Qb1}+$ White would have to go back with $6 \mathrm{Kf4}$.

$$
5 \quad \ldots \mathrm{Qg} 2+
$$

5...Qe2 + transposes. Now it seems that White's scheme has come to naught, for $6 \mathrm{Kf5} \mathrm{Qf} 3+7 \mathrm{Ke} 6 \mathrm{Qd} 5+$ leads to the loss of White's queen. However, it is precisely in this variation that victory lies hidden!

$$
6 \mathrm{Kf5} 5!\quad \text { Qf3+ }
$$

6...Qh3 +7 Kf6 transposes. Now 7 Ke5 loses after 7...Qc3 +8 Ke6 $\mathrm{Q} \times \mathrm{h} 89 \mathrm{Bd} 8 \mathrm{Qe} 8+$ and $10 \ldots \mathrm{Kd7}$. But White can give up his queen in another way.

| 7 Ke6 | Qd5 + |
| ---: | ---: |
| 8 Kf6 | Qd4 + |
| 9 Kf7 | Q $\times \mathrm{hs} 8$ |
| $10 \mathrm{Bd8}$ |  |

This and the next move are designed to lure the Black king to cr , in order to complete the incarceration of Black's queen. The reply is forced.

| 10 | ...Kd7/b7 |
| :---: | :---: |
| $11 \mathrm{cs}=\mathrm{Q}+$ | $\mathrm{K} \times \mathrm{c} 8$ |
| $12 \mathrm{Bf6}$ | h6 |

The last chance, aiming to exchange White's only pawn.

## 13 g 6 and wins

This study forms a good introduction to the next group of positions. which feature a newly-created queen of little value to the side possessing it. It is very easy to imagine that promotion is the ultimate objective of the endgame and simply to stop analysing when one comes to the move $\mathrm{P}=\mathrm{Q}$. But there are some situations in which the extra queen doesn't help. In the next position it is a mating attack
which renders her majesty impotent.


Pfleger-Toth, Rome 1977
White's pieces are of little help in halting the Black a-pawn, but he does have some threats of his own. White's chances lie not so much in promoting the e-pawn but in using the squares it controls to launch an attack on Black's king.

## 1

...a3

After $1 \ldots$ Re8 2 Ra 7 Na 53 Bg 3 a 34 Be 5 a 2 (preventing c4 by $4 \ldots \mathrm{c} 4$ loses after $5 \mathrm{R} \times \mathrm{g} 7+\mathrm{Kf} 86 \mathrm{R} \times \mathrm{h} 7 \mathrm{a} 27 \mathrm{Bf} 6!\mathrm{a} 1=\mathrm{Q}+8 \mathrm{Kf} 2 \mathrm{Qa} 2 / \mathrm{b} 2+$ 9 Kg 3 and Black is mated) $5 \mathrm{c} 4 \mathrm{~N} \times \mathrm{c} 46 \mathrm{R} \times \mathrm{g} 7+\mathrm{Kf8} 7 \mathrm{Bf} 6$ White threatens $8 \mathrm{R} \times \mathrm{h} 7$ mating and $7 \ldots \mathrm{Ra} 8$ fails to $8 \mathrm{e} 7+\mathrm{Ke} 89 \mathrm{Rg} 8+$ and $10 \mathrm{R} \times \mathrm{a} 8$. The move played is more natural because 2 e 7 Re 83 Rd 8 Kf7 is no good for White.

$$
2 \mathrm{f} 6 \quad \mathrm{~g} \times \mathrm{f} 6
$$

If $2 \ldots \mathrm{a} 23 \mathrm{f} 7+\mathrm{Kh} 84 \mathrm{Rd} 1$, and the connected passed pawns triumph.

## $3 \mathrm{~B} \times \mathrm{f6} \quad \mathrm{a} 2$

Both 3...Re8 $4 \mathrm{Rg} 7+\mathrm{Kf} 85 \mathrm{e} 7+$ and $3 \ldots \mathrm{Rf} 84 \mathrm{Rg} 7+\mathrm{Kh} 85 \mathrm{Rg} 6+$ $\mathrm{R} \times \mathrm{f} 66 \mathrm{R} \times \mathrm{f} 6 \mathrm{a} 27 \mathrm{Rfl}$ are hopeless for Black.

## 4 Rg7+

If now 4 Ra 7 then $4 \ldots$ Re8! exchanges the a-pawn for the e-pawn, with a likely draw.

$$
\begin{aligned}
& 4 \\
& 5 \mathrm{R} \times \mathrm{h} 7!\quad \ldots \mathrm{Kf8} \\
& \hline
\end{aligned}
$$

Much better than $5 \mathrm{e} 7+\mathrm{Ke} 86 \mathrm{Rg} 8+\mathrm{Kf7} 7 \mathrm{R} \times \mathrm{b} 8 \mathrm{al}=\mathrm{Q}+8 \mathrm{Kf} 2$ $\mathrm{Qb} 2+9 \mathrm{Kg} 3 \mathrm{~K} \times \mathrm{fb} 10 \mathrm{e} 8=\mathrm{QQ} \times \mathrm{c}^{3}+11 \mathrm{Kf} 2 \mathrm{Qd} 4+$ and Black delivers perpetual check. The move played sets up a mating threat which forces Black to give up his extra queen immediately.

| 5 | $\ldots \mathrm{al}=\mathrm{Q}+$ |
| :--- | :---: |
| $6 \mathrm{Kf2}$ | $\mathrm{Qb} 2+$ |
| 7 Kg 3 | $\mathrm{Q} \times \mathrm{c} 3+$ |

Forced, but White retains his initiative and his extra passed pawn!

$$
\mathbf{8} \mathbf{B} \times \mathbf{c} 3 \quad \operatorname{Re} 8
$$

and the game ended $9 \mathrm{Rh} 8+\mathrm{Ke7} 10 \mathrm{R} \times \mathrm{e} 8+(10 \mathrm{Bf6}+$ was even stronger) $\mathrm{K} \times \mathrm{e} 8 \mathbf{1 1} \mathbf{h 4} \mathbf{K e 7} \mathbf{1 2} \mathbf{h 5} \mathbf{1 - 0}$, since after 12..Ne3 $13 \mathrm{Kf4}$ ! $\mathrm{N} \times \mathrm{g} 2+14 \mathrm{Kg} 5 \mathrm{~K} \times \mathrm{c} 615 \mathrm{~h} 6$ White promotes his h -pawn.

The following game is a much more complex case, hut it has the same basic idea of mating threats reducing the value of an extra queen.


Lazarev-Sakharov. Kiev 1962
Black has a significant material advantage, but at the moment his picces are badly tied up. The rook defoads the a-pawn, while the necessity of defending the rook immobilises the chain of knights. Black decides to give up the a-pawn in order to go directly for the White king, a decision which is probably right, since the alternative 1 ...Kf8 (intending to support the pieces with his king) 2 Rel! (2 b4 Ke7 3 b5 Kd6 4 b6 e2 followed by $5 . . \mathrm{N} \times$ b6 is good for Black) intending $3 \mathrm{R} \times \mathrm{c} 7$ is rather drawish.

| 1 | ...Rc2!? |
| :---: | :---: |
| $2 \mathrm{R} \times \mathrm{a} 7$ | Nf4 |
| $3 \mathrm{Ra} 8+$ | Kh7 |
| 4 a 7 | $\mathrm{R} \times \mathrm{g} 2+$ |
| 5 Khi | e2 |

All forced up to here. Now White plays the most flexible move. seeing if Black will take the rook on h 8 before deciding what to do with the rook on dl.
$6 \mathrm{Rh} 8+\quad \mathrm{Kg} 6$

This move leads to a clear-cut draw, whereas $6 \ldots \mathrm{~K} \times \mathrm{h} 8$ gives rise to great complications: $6 \ldots \mathrm{~K} \times \mathrm{h} 87 \mathrm{a} 8=\mathrm{Q}+\mathrm{Kh} 78 \mathrm{Re} 1$ (the attack on the e-pawn is useful in some variations and there is no positive advantage to other rook moves, so this must be best) Rt2 9 Qa6 (forced, as $9 \mathrm{Kg} 1 \mathrm{Nh} 3+10 \mathrm{Kh} 1 \mathrm{Rfl}+11 \mathrm{Kg} 2 \mathrm{Nf} 4+12 \mathrm{Kg} 3 \mathrm{~N} 6 h 5+$ wins for Black) N6d5! and now:
(A) 10 Kgl ( 10 Qb 5 fails to cope with the threat of $10 \ldots \mathrm{Ne} 3$ and 11...Rtlt) Nh3 + $11 \mathrm{Kh} 1 \mathrm{~N} 5 f 4$ (intending 12..Rg2 and 13...Nf2 mate) 12 Ob5 (White's only defence is to aim for perpetual check with Qf5 + ) h5! (giving the flight square h6, where the king would be relatively safe from checks) 13 Ra1 Rg2 14 Qf5 + Kh6 and wins. (B) 10 h 4 Ne 311 Qa5 (or else 11 . Rf1 + wins) $\mathrm{Rf} 1+12 \mathrm{Kh} 2 \mathrm{R} \times \mathrm{el}$ $13 \mathrm{Q} \times \mathrm{e} 1 \mathrm{Nc} 2$ pushes the e-pawn through.
(C) 10 Qc4 (best) f5! (cutting out the annoving check on e4. Other tempting lines fail, e.g. $10 \ldots \mathrm{Rf} 1+11 \mathrm{R} \times \mathrm{f} 1 \mathrm{Ne} 312 \mathrm{Q} \times \mathrm{e} 2!\mathrm{N} \times \mathrm{e} 213$ Re 1 wins; or $10 \ldots \mathrm{Ne} 311 \mathrm{Qe} 4+\mathrm{f} 512 \mathrm{Q} \times \mathrm{e} 3 \mathrm{Rf} 1+13 \mathrm{Qg} 1 \mathrm{R} \times \mathrm{g} 1+$ $14 \mathrm{~K} \times \mathrm{g} 1$, with very good chances for White in the ending, or $10 \ldots$ g5, intending ...Nb4-d3, when White should not try $11 \mathrm{Qe} 4+\mathrm{Kg} 8$ $12 \mathrm{Qe} 8+\mathrm{Kg} 713 \mathrm{Qe} 5+\mathrm{f} 6$, when Black wins, but simply 11 b 4 , when White has whatever winning chances there are in this position) 11 h 4 (11...Ne3 was again a threat and $11 \mathrm{Kgl} \mathrm{Nh} 3+12 \mathrm{Kh} 1 \mathrm{Ne} 3$ and $13 \ldots \mathrm{Rf} 1+$ loses) Rf1 + (Black has no other constructive plan) 12 $\mathrm{R} \times \mathrm{fi} \mathrm{Ne} 313 \mathrm{Q} \times \mathrm{e} 2 \mathrm{~N} \times \mathrm{e} 214 \mathrm{Re} 1 \mathrm{Ng} 3+15 \mathrm{Kh} 2 \mathrm{f} 4$, with a rather unclear ending in which a draw is the most likely outcome.

## 7 Re1 $\quad$ Rf2 <br> $8 \mathrm{Rg} 1+$

Forced. Now Black could have drawn comfortably by $8 \ldots \mathrm{Rg} 2$, when White must either repeat moves or go in for $9 \mathrm{R} \times \mathrm{g} 2+\mathrm{N} \times \mathrm{g} 210$ $\mathrm{a} 8=\mathrm{Qel}=\mathrm{Q}+11 \mathrm{~K} \times \mathrm{g} 2 \mathrm{Qe} 2+$, when Black delivers perpetual check. Instead he plays a more imaginative move, but this does not change the result.

$9 \mathrm{f} \times \mathrm{g} 4$ Rf1 10 Re8 Ne6 $11 \mathrm{a} 8=\mathrm{Q}$ el $=\mathrm{Q}(11 \ldots \mathrm{R} \times \mathrm{g} 1+12 \mathrm{~K} \times \mathrm{g} 1$ $\mathrm{e} 1=\mathrm{Q}+13 \mathrm{Kg} 2 \mathrm{Nf} 4+$ ? $14 \mathrm{Kf} 3 \mathrm{Qf1}+15 \mathrm{Ke} 4$ is rather risky for Black, but $13 \ldots \mathrm{Qe} 2+$ is again a draw) $12 \mathrm{Qg} 2 \mathrm{R} \times \mathrm{g} 1+13 \mathrm{Q} \times \mathrm{g} 1 \mathrm{Qe} 4+$, with perpetual check once more.

| 9 | ...Kh5 |
| :---: | :---: |
| 10 Re 8 | Rf1+ |
| 11 Rgl | Ne6 |
| $12 \mathrm{R} \times \mathrm{e} 6$ |  |

Certainly not $12 \mathrm{a} 8=\mathrm{Q} \times \mathrm{gl}+13 \mathrm{~K} \times \mathrm{gl} \mathrm{el}=\mathrm{Q}+14 \mathrm{Kg} 2 \mathrm{Nf} 4$ mate!

$$
13 \mathrm{a} 8=\mathrm{Q} \quad \mathrm{R} \times \mathrm{g} 1+
$$

After 13...e1 $=\mathrm{Q}$ ? $14 \mathrm{Qe} 8+$ Kh4 15 Qa4 + Black is mated.

$$
14 \mathrm{~K} \times \mathrm{g}_{\frac{1}{2}-\frac{1}{2}} \mathrm{e} 1=\mathrm{Q}+
$$

since $15 \mathrm{Kg} 2 \mathrm{Qe} 2+16 \mathrm{Kg} 3 \mathrm{Qel}+$ is an immediate draw ( $17 \mathrm{Kf4}$ ? g5 mate).

The next position is remarkable because, although the Black king is completely open, White cannot profit from the multitude of checks available to his queen.


Rittner-Bruntrup, Berlin Ch. 1962
Although White's passed pawn cannot be stopped his king is in a dreadful position. Since the line actually chosen by White does not lead to a win, he would have done better to play $1 \mathrm{Rg} 3!\mathrm{R} \times \mathrm{g} 3+$ ( $1 \ldots \mathrm{f} 42 \mathrm{R} \times \mathrm{g} 2 \mathrm{Bf} 5+3 \mathrm{Rg} 4 \mathrm{~B} \times \mathrm{e} 64 \mathrm{Nd} 6$ wins for White, while $1 \ldots$ Rc 22 Nd 6 and $1 \ldots \mathrm{~g} 4+2 \mathrm{Kh} 4 \mathrm{R} \times \mathrm{h} 2+3 \mathrm{Kg} 5$ both give White good winning chances) $2 \mathrm{~K} \times \mathrm{g} 3$ or $2 \mathrm{~h} \times \mathrm{g} 3$ and White will win Black's bishop, although he still may not be able to win the game.

$$
1 \text { e } 7 \quad \text { Rg4 }
$$

At first sight this forces a draw by $2 \mathrm{Rc} 2(2 \mathrm{Rg} 3$ ? Rh4 mate) Rh4+ $3 \mathrm{Kg} 3 \mathrm{f} 4+4 \mathrm{Kf} 2 \mathrm{R} \times \mathrm{h} 2+$ with perpetual check, for White may never move to the c-file in view of $\ldots \mathrm{R} \times \mathrm{c} 2+$ and $\ldots \mathrm{R} \times \mathrm{c} 8$. But White succeeds in promoting his pawn with check.
$2 \mathrm{Ra} 3+$
$3 \mathrm{Ra} 4+$$\quad \mathrm{Kb4}$

After $3 \mathrm{Ra} 2 \mathrm{Rh} 4+4 \mathrm{Kg} 3 \mathrm{f} 4+5 \mathrm{Kf} 2 \mathrm{R} \times \mathrm{h} 2+$. White's king has absolutely no shelter from the rain of checks.

This is necessary or else $4 \mathrm{R} \times \mathrm{e} 4$ wins.

$$
4 \mathrm{e} 8=\mathrm{Q}+\quad \mathrm{Kb} 3
$$

At some point White will have to make a quiet move with his queen to cover the mate on g2. Where can the queen stand? If on the second rank (except for f 2 ), Black plays ...Rh4+, ...f4+ and ...R $\times \mathrm{h} 2+$, while on f 1 the same manoeuvre with ...Rhl at the end is effective. This only leaves f 2 , but if 5 Qb5 +Kc 36 Oc5 +Kd 37 Qf2, Black draws by $7 \ldots \mathrm{Rh} 4+8 \mathrm{Q} \times \mathrm{h} 4 \mathrm{~g} \times \mathrm{h} 49 \mathrm{~K} \times \mathrm{h} 4$ ( 9 e 6 f 410 e 7 Bc 6 is also safe) f4 10 Nd6 Bd5 and the f -pawn is too dangerous to allow White to make progress. So to hold the draw Black need only ensure that White can never cover g2 with check.

| 5 Qb5 + | Kc3 |  |
| :--- | :--- | :--- |
| 6 Qc5 + | Kd3 |  |
| 7 | Qb5 + |  |

If $7 \mathrm{Qa} 3+\mathrm{Ke} 28 \mathrm{Qb} 2+\mathrm{Kf} 3$, the threat of $\ldots \mathrm{Rh} 4$ mate forces White to continue checking.

The game finished 7...Ke3 8 Qc5 + Kf3 9 Qc3 + Kf2 10 Qd2 + Kf3 11 Qd1 + Kf4 12 Qd2 + Kf3 13 Qel $\frac{1}{2}-\frac{1}{2}$, in anticipation of $13 \ldots \mathrm{Rh} 4+$ $14 \mathrm{Q} \times \mathrm{h} 4 \mathrm{~g} 4+15 \mathrm{Q} \times \mathrm{g} 4+\mathrm{f} \times \mathrm{g} 4+16 \mathrm{Kh} 4 \mathrm{Bf} 517 \mathrm{Nd} 6 \mathrm{Kf} 418 \mathrm{Nf} 7$ Be6, picking up the e-pawn.

Needless to say, study composers have explored the theme of the helpless queen. Here is one of the most dramatic examples:

L. Olmoutskl, 1st Pr., Shakhmaty 1964

White starts by checking, to get the rooks behind the pawns with gain of tempo.

| $1 \mathrm{Ra} 3+$ |  |
| :--- | :--- |
| $2 \mathrm{Rab} 3+$ | Kb 4 |

2 Rhb3 + ? throws away the win, e.g. $2 \ldots \mathrm{Kc} 43 \mathrm{Rc} 3+\mathrm{Kb} 44 \mathrm{Rab} 34$ Ka4 5 Rd 3 (or else White can only repeat moves) $\mathrm{d} 1=\mathrm{Q} 6 \mathrm{R} \times \mathrm{dl}$
$\mathrm{K} \times \mathrm{b} 3$, with a simple draw.

$$
2 \text {...Kc4 }
$$

After 2 ...Ka4 the king is sufficiently far away to justify $3 \mathrm{Rbg} 3!\mathrm{bl}=\mathrm{Q}$ (3...dl $=\mathrm{Q} 4 \mathrm{Rh} 4+\mathrm{Kb} 55 \mathrm{Rg} 54$ wins) $4 \mathrm{Rh} 4+$ ! (not $4 \mathrm{Rg} 4+\mathrm{Kb} 5$ $5 \mathrm{Rh} 5+\mathrm{Kc} 6$ and $6 \mathrm{Rg} 6+$ is impossible) Kb 5 (or $4 \ldots \mathrm{Qb} 45 \mathrm{R} \times \mathrm{b} 4+$ $\mathrm{K} \times \mathrm{b} 46 \mathrm{Rd} 3$ ) $5 \mathrm{Rg} 5+\mathrm{Kc} 66 \mathrm{Rh} 6+$ and mates.

## 3 Rhc3+

Again White has to be careful which rook to use, for 3 Rbc $3+$ ? Kd 4 $4 \mathrm{Rhd} 3+$ (4 Rcd3+ Kc4 only repeats) Ke4 5 Rb 3 (5 Re3+ Kd4) $\mathrm{bl}=\mathrm{Q} 6 \mathrm{R} \times \mathrm{b} 1 \mathrm{~K} \times \mathrm{d} 3$ only leads to a draw.


Black threatens to draw by promoting either pawn, so White must find something constructive to do.

$$
5 \text { Rbc3+! Kb4 }
$$

If $5 \ldots \mathrm{~Kb} 56 \mathrm{Rd} 8 \mathrm{Ka4}$ (the reply to $6 \ldots \mathrm{~Kb} 4$ is the same) $7 \mathrm{Rc} 7 \mathrm{bl}=\mathrm{Q}$ $8 \mathrm{Ra} 7+$, followed by $9 \mathrm{Rb} 7+$ and $10 \mathrm{R} \times \mathrm{b} 1$ wins.

## 6 Rc7!!

Surprising, since $6 \ldots \mathrm{~b} 1=\mathrm{Q} 7 \mathrm{Rb} 7+\mathrm{Kc} 48 \mathrm{R} \times \mathrm{b} 1 \mathrm{~K} \times \mathrm{d} 3$ is a draw, but White has in mind a second quiet move.

| 6 |
| :--- |
| $7 \mathrm{Rd} 8:$ |$\quad .. \mathrm{b} 1=\mathrm{Q}$

Threatening mate in two. White's sixth move is explained by the need to defend h7. Note that 6 Rc8? bl $=$ Q 7 Rd7 fails to $7 \ldots$ Qe4! stopping the mate.

$$
7 \quad \text {...Qe4 }
$$

There is no defence, e.g. 7.. $\mathrm{dl}=\mathrm{Q} 8 \mathrm{Rb} 8+\mathrm{Ka3} 9 \mathrm{Ra} 7+$ followed by $10 \mathrm{R} \times \mathrm{a} 4+$ and $11 \mathrm{R} \times \mathrm{b} 1$ or $7 \ldots \mathrm{Qf1} 8 \mathrm{Rb} 8+\mathrm{Qb} 59 \mathrm{R} \times \mathrm{b} 5+$ and 10 Rd 7.
$8 \mathrm{Rb} 8+\quad \mathrm{Ka} 3$
$9 \mathrm{Ra} 7+$
and wins after 9...Qa4 $10 \mathrm{R} \times \mathrm{a} 4+\mathrm{K} \times \mathrm{a} 411 \mathrm{Rd} 8$. The position after White's 7th move is a remarkable example of a queen (or two!) unable to check or to stop the inate.

A second reason why a new queen may be of no value is that the opponent is also threatening to promote (usually with check) and the queen cannot usefully cover the promotion square.


Sandro-Weider, Cagres sur Mer, 1977
Once again both sides have passed pawns, but Black's looks less dangerous since White can play Rdl preventing the pawn's advance, followed by Kd 4 and if ...Ba6 then b5, depriving the pawn of its defence. This threat implies that Black must act quickly if he is to avoid defeat.

$$
1 \quad \text {...d } 2!
$$

A precisely calculated move. Black intends removing the blockade of his passed pawn, cven if it allows White to promote in the meantime.

## 2 Rd1 Re2+

A necessary corollary to the last move, or else Black just loses his pawn. If now 3 Kf 3 Rh 2 forces a repetition, so . .

| $3 \mathrm{Kd4}$ | Bb3 |
| :--- | :--- |
| $4 \mathrm{h7}$ |  |

If $4 \mathrm{R} \times \mathrm{d} 2 \mathrm{R} \times \mathrm{d} 2+5 \mathrm{Kc} 3 \mathrm{Rg} 26 \mathrm{~K} \times \mathrm{b} 3 \mathrm{R} \times \mathrm{g} 3+7 \mathrm{Kc} 4(7 \mathrm{Kc} 2 \mathrm{Rh} 3$ $8 \mathrm{~h} 7 \mathrm{Kf8}$ followed by $\ldots \mathrm{Kg} 7$ frees the rook to attack the f-pawn or the queenside pawns) Rf 3 followed by $\ldots \mathrm{R} \times 14$ and $\ldots \mathrm{Rh} 4$, procuring a useful passed $g$-pawn. Black would have whatever winning chances there are.

$$
\begin{array}{ll}
4 & \ldots B \times d 1 \\
5 \mathrm{~h} 8=\mathrm{Q} & B \times a 4
\end{array}
$$

Covering the mate on e8. Now $6 \mathrm{Ng} 8+$ ? loses to $6 \ldots \mathrm{Kd} 77 \mathrm{Nf} 6+\mathrm{Kc} 7$ $8 \mathrm{Ne} 8+\mathrm{B} \times 88$, so White's reply is the only move to draw.

$$
6 \mathrm{Nd} 5+\quad \mathrm{e}+\mathrm{d} 5
$$

Or else 7 Nc 3 wins.

$$
7 \text { Qf6 }+\quad \text { Kf8 }
$$

Not 7...Ke8? 8 Kc5! (8 Qh8 + ? Kd7 9 e6 + Kc7 wins) Kf8 (8 ...d1 $=$ Q

9 Kd 6 mates) 9 Kd 6 (threat 10 Qh 8 mate) $\mathrm{Kg} 810 \mathrm{Ke} 7 \mathrm{~d} 1=\mathrm{Q} 11$ $\mathrm{Q} \times \mathrm{f} 7+\mathrm{Kh} 812 \mathrm{Kf} 8$ and White mates. However. $7 \ldots \mathrm{Kd} 78 \mathrm{Q} \times \mathrm{f} 7+$ $\mathrm{Kc} 89 \mathrm{Qf} 8+\mathrm{Kc} 710$ Qd6 + is a draw by perpetual check.

```
8 Qh8+
9 Qf6+
```

$$
\frac{1}{2}-\frac{1}{2}
$$

In the above game both sides played accurately, but the next position features an excellent swindle.


Rodriguez-Larsen, Riga 1979

As in the previous position, White has a powerful passed pawn on h6. Like many of the positions in this chapter White's mistake lies in advancing the pawn too quickly, instead of taking time out to nullify the opponent's counterplay. Simply 1 Rf1! should win, e.g. 1...b2 2 Kc 2 Ral 3 Rb 1 and now Black cannot further delay the advance of the h-pawn.

$$
\begin{aligned}
& 1 \mathrm{h7} \% \\
& 2 \mathrm{~h} 8=\mathrm{Q} ?
\end{aligned} \quad \text { Ra1! }
$$

White is blundering at the rate of half a point per move! He could have drawn by $2 \mathrm{Rf} 2(2 \mathrm{Ke} 2 \mathrm{Rel}+3 \mathrm{Kf} 2 \mathrm{Rh} 14 \mathrm{~h} 8=\mathrm{QR} \times \mathrm{h} 85 \mathrm{~N} \times \mathrm{h} 8$ b2 $6 \mathrm{Rb} 3 \mathrm{Bc} 37 \mathrm{Ng} 6 \mathrm{Kc} 48 \mathrm{R} \times \mathrm{b} 2 \mathrm{~B} \times \mathrm{b} 29 \mathrm{~N} \times \mathrm{e} 7 \mathrm{~B} \times \mathrm{d} 44$ may also be a draw, but White has to work a little) $\mathrm{Rdl}+3 \mathrm{Ke} 3 \mathrm{Rel}+4 \mathrm{Kd} 3$ ( $4 \mathrm{Kf} 3 \mathrm{Rh} 15 \mathrm{~h} 8=\mathrm{Q}$ R $\times \mathrm{h} 86 \mathrm{~N} \times \mathrm{h} 8 \mathrm{~K} \times \mathrm{d} 4$ is hard to assess, but Black should have no trouble drawing and may be better) $\mathrm{Rd} 1+$. with a draw by repetition.

$$
2 \text {...b2 }
$$

Black threatens to start a mating attack by promoting with check and although White is a whole queen up there is nothing he can do about it.

| $3 \mathrm{Qd8}+$ | Bd6 |
| :--- | :--- |
| 4 Ke 3 | b1=Q |
| $5 \mathrm{~N} \times \mathrm{d} 6$ | $\mathrm{Qc1}+$ |

## 0-1

as $6 \mathrm{Kf} 2(6 \mathrm{Ke} 2 \mathrm{Ra} 2+$ or $6 \mathrm{Kd} 3 \mathrm{Ra} 3+$ mate quickly) $\mathrm{Qg} 1+7 \mathrm{Ke} 2$ $\mathrm{Ra} 2+8 \mathrm{Kd} 3 \mathrm{Qdl}+$ mates in two moves.

For some reason the finale of the following study is particularly hard to see. I have shown strong players the position two moves from the end and some have taken a couple of minutes to spot the solution!

D. Gurgenidze, 1-3 Pr., Komunisti 1973

## $1 \mathrm{Ng} 3+$

If 1 Rf1 Rc1 $2 \mathrm{Nf} 2+(2 \mathrm{Ng} 3+\mathrm{Ke} 53 \mathrm{Rf} 5+$ Ke6 wins $) \mathrm{Kd} 43 \mathrm{Nd} 1 \mathrm{a} 2$ wins.

1 ...Kd4
As it turns out, this is not a very good square for the king, but there is no choice, since $1 \ldots \mathrm{Ke} 32 \mathrm{Nf} 1+\mathrm{Ke} 43 \mathrm{~N} \times \mathrm{d} 2+\mathrm{K} \times \mathrm{f} 54 \mathrm{~K} \times \mathrm{a} 3$ and $1 \ldots \mathrm{Kd} 32 \mathrm{~K} \times \mathrm{a} 3$ ! Rc3 $+3 \mathrm{~Kb} 2(3 \mathrm{~Kb} 4$ ? Rc4+ and $4 \ldots \mathrm{~d} 1=\mathrm{O}) \mathrm{Rc} 2+$ (3...Rb3 +4 Ka 2 ) 4 Kb 3 are completely drawn.

## 2 Rf1

If $2 \mathrm{Ne} 2+\mathrm{Ke} 3(2 \ldots \mathrm{Kd} 3$ ? $3 \mathrm{~K} \times \mathrm{a} 3 \mathrm{~d} 1=\mathrm{O}+\mathrm{Rd} 5+\mathrm{K} \times \mathrm{e} 25 \mathrm{R} \times \mathrm{d} 1$ $\mathrm{K} \times \mathrm{d} 1$ and now, not $6 \mathrm{a} 5 \mathrm{Rc4}$ ! winning, but 6 Kb 4 and White draws) 3 Re5 + (3 Rd5 a2) Kf2 $4 \mathrm{Nc} 3 \mathrm{R} \times \mathrm{c} 3$ and Black wins, or 2 Rf 7 a 2 . After 2 Rf1 Black cannot play $2 \ldots \mathrm{Rc}$. due to the fork at e 2 .

| 2 |
| :---: |
|  |  |

Black had renewed the threat of ...Rcl and $3 \mathrm{Ne} 2+$ failed to $3 \ldots \mathrm{Ke} 3$ $4 \mathrm{Nc} 3 \mathrm{Rb} 8+5 \mathrm{Kc} 4(5 \mathrm{Nb} 5 \mathrm{Ke} 2) \mathrm{Rb} 16 \mathrm{~N} \times \mathrm{b} 1(6 \mathrm{Nd} 5+\mathrm{Ke} 2) \mathrm{a} 1=\mathrm{Q}$
$7 \mathrm{~N} \times \mathrm{d} 2 \mathrm{Q} \times \mathrm{a} 4+8 \mathrm{Kc} 3$ Qa5 + picking up the knight, so 3 Rd 1 is the only move.

$$
3 \text {...Ke5 }
$$

Since 3...Kd3 4 Nf1 Re2 5 Kb3 is an easy draw, Black must move his king off the dangerous d-file.

## 4 Ne 2

The only way to stop $4 \ldots \mathrm{Rc}$, which now loses to $5 \mathrm{~N} \times \mathrm{cl}$ al $=\mathrm{Q} 6$ $\mathrm{Nd} 3+$.

$$
4 \quad \ldots \mathrm{Rb8}+
$$

Black finds another way to the eighth rank and it looks as though the a-pawn is going through, but there is an exceptional defence.

| $5 \mathrm{Ka} 3!$ | Rb 1 |
| :--- | :--- |
| $6 \mathrm{R} \times \mathrm{d} 2!$ $\mathrm{al}=\mathrm{Q}+$ <br> 7 Ra 2  |  |

Trapping the queen! Black has nothing better than 7...Rb3+ with a clear draw.

We continue with a couple of practical examples in which both sides are struggling to promote.


Klebanov-Kalinichenko, USSR 1970
Certainly Black has the advantage. His pawns are further advanced and it is his turn to move. Can he win? The answer given in Informator is yes, with the aid of the move 1...Bh1!! (not 1...Bf3? $2 \mathrm{~B} \times 13$ and $2 \ldots \mathrm{~K} \times \mathrm{f} 3.3$ a 7 or $2 \ldots \mathrm{~g} 23$ a7, with at least a draw for White in both cases) $2 \mathrm{~b} 5(2 \mathrm{~B} \times \mathrm{h} 1 \mathrm{~g} 23 \mathrm{~B} \times \mathrm{g} 2 \mathrm{~h} \times \mathrm{g} 24 \mathrm{a} 7 \mathrm{gl}=\mathrm{Q} 5 \mathrm{a} 8=\mathrm{O}$ Qal + wins) g 2 and Black is winning, since $3 \mathrm{a} 7 \mathrm{gl}=04 \mathrm{a} 8=\mathrm{Q}$ loses to 4...Qal+. The game actually finished $3 \mathrm{~b} 6 \mathrm{gl}=\mathrm{Q} 4 \mathrm{~B} \times \mathrm{h} 1 \mathrm{Q} \times \mathrm{h} 15$ $b 7$ Qb1 0-1. since the pawns are permanently halted. Certainly $1 .$. Bhl was a delightful move to occur in a game, but analysis shows
that Black had a more effective continuation. First let's see what's wrong with $1 \ldots$ Bh1.

## 1 ...Bh1 <br> 2 Kb 5 !

We saw above that the position of the White king on the a-file is very unsatisfactory and 2 Kb 6 allows Black to promote with check. so one is left with this move.
2 ...g2

White threatened $3 \mathrm{~B} \times \mathrm{h} 1 \mathrm{~g} 24 \mathrm{~B} \times \mathrm{g} 2$ and 5 a 7 . so Black has no choice.

| 3 a 7 | $\mathrm{g1}=\mathrm{Q}$ |
| :--- | :--- |
| $4 \mathrm{a} 8=\mathrm{Q}$ | Qf1 + |

After 4...Qg5 +5 Ka 4 Black runs out of checks immediately.

## 5 Kb6!

Not 5 Kc5? Qf2 + and now:
(A) $6 \mathrm{Kc} 4 \mathrm{Qe} 2+7 \mathrm{Kd} 4(7 \mathrm{Kc} 3 / \mathrm{b} 3$ fails to $7 \ldots \mathrm{~B} \times \mathrm{b} 78 \mathrm{Qb} 8+\mathrm{Kg} 49$ $\mathrm{Qg} 8+\mathrm{Kf} 310 \mathrm{Qf} 7+\mathrm{Kg} 211 \mathrm{Qg} 7+\mathrm{Kf} 2$ winning, while if $7 \mathrm{Kc} 5 \mathrm{Qe} 3+$ then 8 Kc 4 transposes to the main line of $\mathrm{A}, 8 \mathrm{~Kb} 5$ transposes to B and 8 Kd 6 loses to $8 \ldots \mathrm{Qb} 6+$ ) $\mathrm{Qe} 3+8 \mathrm{Kc} 4 \mathrm{~B} \times \mathrm{b} 79 \mathrm{Qb} 8+\mathrm{Qe} 5$ or $9 \mathrm{Qf} 8+\mathrm{Kg} 310 \mathrm{Qg} 7+\mathrm{Kf3}$ and in both cases White must take the bishop and allow ...Qe4+.
(B) $6 \mathrm{~Kb} 5 \mathrm{Qe} 2+7 \mathrm{Kc} 5 / \mathrm{b} 6 \mathrm{Qe} 3+8 \mathrm{~Kb} 5(8 \mathrm{Kc} 4 \mathrm{~B} \times \mathrm{b} 7$ is A , while 8 $\mathrm{Kc} 7 \mathrm{Qe} 7+$ wins $) \mathrm{Qd} 3+9 \mathrm{Kc} 5(9 \mathrm{Ka4} \mathrm{Qd} 7+$ or $9 \mathrm{~Kb} 6 \mathrm{Qd} 4+$ transposing) Qc3 + $10 \mathrm{~Kb} 5 \mathrm{Qe} 5+11 \mathrm{~Kb} 6(11 \mathrm{Kc} 4 \mathrm{Qc} 7+$ ) $\mathrm{Qd} 4+12 \mathrm{~Kb} 5$ $(12 \mathrm{Kc} 7 \mathrm{Qg} 7+$ ) Qd7+ , followed by exchanging twice on b 7 winning.

$$
\begin{aligned}
& 5 \\
& 6 \mathrm{Kc} 7
\end{aligned} \quad \ldots \mathrm{Qf} 2+
$$

Again the only move, since 6 Kb 5 transposes to the analysis of 5 Kc5?

$$
6 \quad \ldots B \times b 7
$$

The best moment to make this exchange, for after $6 \ldots \mathrm{Qc} 2+7 \mathrm{~Kb} 8$ the White queen will have greater freedom on $b 7$.

$$
7 \mathrm{Q} \times \mathrm{b} 7
$$

Black wins after $7 \mathrm{Qf} 8+\mathrm{Kg} 38 \mathrm{Qg} 7+\mathrm{Kh} 2$.

After 7...h2 8 Qd5 White's centralised queen gives him good drawing chances. Now, however, White faces a number of problems on account of his poorly placed queen. Black is far from having a forced win.
but in practice he would have good chances. The conclusion is that $1 \ldots$ Bh1 is not very clear. However, Black does have a forced win!

1
...Ke5!
Black observes that White needs two tempi to advance his b-pawn before he is threatening anything, and calmly brings his king back to aid in the fight against White's pawns. Now there are two lines:
(A) $2 \mathrm{~Kb} 6(2 \mathrm{~Kb} 5$ ? $\mathrm{Bf} 1+$ and $3 \ldots \mathrm{~B} \times$ a6 loses at once, while $2 \mathrm{~B} \times \mathrm{g} 2$ ? $\mathrm{h} \times \mathrm{g} 23 \mathrm{a} 7 \mathrm{hl}=\mathrm{Q}$ and $4 \ldots \mathrm{Qa}$ + is familiar) Be4! (possible now as Black can promote with check) 3 Kc 7 ( $3 \mathrm{~B} \times \mathrm{e} 4 \mathrm{~g} 2$ or $3 \mathrm{~Kb} 5 \mathrm{Bd} 3+$ and $4 \ldots \mathrm{~B} \times \mathrm{a} 6$ or $3 \mathrm{a} 7 \mathrm{~B} \times \mathrm{b} 74 \mathrm{~K} \times \mathrm{b} 7 \mathrm{~h} 2$ are all hopeless) g2 4 a 7 $\mathrm{g} 1=\mathrm{Q} 5 \mathrm{a} 8=\mathrm{Q} \mathrm{Qg} 7+$, followed by exchanging on b 7 wins.
(B) 2 b5 ( 2 Ka 4 Kd 63 b 5 Kc 7 wins) Kd 63 Kb 6 ( $3 \mathrm{~b} 6 \mathrm{Bc} 6!$ and White cannot promote a pawn, e.g. $4 \mathrm{Ba} 8 \mathrm{~B} \times \mathrm{a} 85 \mathrm{~b} 7 \mathrm{~B} \times \mathrm{b} 76 \mathrm{a} \times \mathrm{b} 7 \mathrm{Kc} 7$ or 4 Bc 8 h 25 b 7 Kc 7$) \mathrm{Bd} 54 \mathrm{~B} \times \mathrm{d} 5(4 \mathrm{a} 7 \mathrm{~B} \times \mathrm{d} 7$ and $5 \ldots \mathrm{~h} 2) \mathrm{g} 25 \mathrm{a} 7$ $\mathrm{g} 1=\mathrm{Q}+6 \mathrm{~Kb} 7 \mathrm{Qg} 7+7 \mathrm{Ka6}(7 \mathrm{~Kb} 6 \mathrm{Qd} 4+$ and $8 \ldots \mathrm{Q} \times \mathrm{d} 5) \mathrm{Qa} 1+8$ $\mathrm{Kb} 7 \mathrm{~K} \times \mathrm{d} 5$ and wins.

A similar idea works in the next position:


Emerson-Nunn, London 1969
1
...Kf5
White will win if he can exchange queens after both sides promote, so $1 \ldots \mathrm{Kf7} / \mathrm{h} 7$ loses to $2 \mathrm{~b} 4 \mathrm{~g} 53 \mathrm{~b} 5 \mathrm{~g} 44 \mathrm{~b} 6 \mathrm{~g} 35 \mathrm{~b} 7 \mathrm{~g} 26 \mathrm{~b} 8=\mathrm{O} \mathrm{g} 1=\mathrm{Q}$ 7 Qa7 + , while $1 \ldots$ Kf6 allows 7 Qb6 + in this line. Since $1 \ldots \mathrm{Kh} / \mathrm{h} 6$ lose the queen to $7 \mathrm{Qh} 8+$, Black's move could easily be tound by a process of elimination. The game now continued 2 b 4 g 53 b 5 g 44 $\mathrm{b} 6 \mathrm{~g} 35 \mathrm{~b} 7 \mathrm{~g} 26 \mathrm{~b} 8=\mathrm{Q} \mathrm{g} 1=\mathrm{Q}$ and ended in a draw, since White cannot exchange queens. But a week later Roger Emerson pointed out to me the missed win. . .

## 2 Kb 5 !

A surprising move, since Black can easily head off the White king's
march towards gl with his own king. But if he does this White will be able to promote with check.

$$
2
$$

If $2 \ldots$ Ke4 3 a 4 while $2 \ldots \mathrm{Kf4} 3 \mathrm{Kc} 4$ will transpose into the main line.

## 3 Kc4 <br> Ke4

Or 3...g4 (3...Kf4 4 Kd 3 and both $4 \ldots \mathrm{~g} 4$ and $4 \ldots \mathrm{Kf} 35 \mathrm{a} 4 \mathrm{~g} 4$ transpose into the continuation of this note) 4 Kd 3 Kf 45 a 4 ! ( 5 Ke 2 ? Kg 36 b4 Kh3! draws) Kf3 (if $5 \ldots \mathrm{~g} 36 \mathrm{Ke} 2$ and White stops the pawn, while if $5 \ldots \mathrm{Kg} 36$ a5 K moves 7 a 6 White will be able to swop queens after both sides promote) 6 a5 g3 7 a6 g2 8 a $7 \mathrm{~g} 1=\mathrm{Q} 9 \mathrm{a} 8=\mathrm{Q}+\mathrm{Kf} 410$ Qe4+ and $11 \mathrm{Oe} 3+$ and White wins.

| $\mathbf{4 a 4}$ | $\mathrm{g4}$ |
| :--- | :--- |
| $5 \mathrm{a5}$ | g 3 |

$6 \mathrm{a} 6 \mathrm{~g} 27 \mathrm{a} 7 \mathrm{gl}=\mathrm{Q} 8 \mathrm{a} 8=\mathrm{Q}+\mathrm{Kf4}(8 \ldots \mathrm{Ke} 5 / \mathrm{f} 5$ loses at once after 9 Qd5 + and 10 Qd4+) 9 Qf8 + Ke4 (9...Ke5 10 Qc5+) 10 Qe7 + Kf3/f4 11 Qf6 + Ke4 (11...Ke2 12 Qe5+Kf1/f3 13 Qf5 + Ke2 14 Qe4t. forcing the exchange next move) 12 Qc6+! Kf4 13 Qd6+ Kf3 (13...Ke4 14 Qd5 + loses slightly more quickly) 14 Qd5 +Ke 215 Qe4+ and once again White exchanges queens and wins.

Both sides promote in the next position, which also features a situation in which two passed pawns outweigh a queen.


Hort-Keres, Oberhausen 1961
It is likely that White was expecting to win the pawn on c4 and thereby remove most of his problems, but Black found a surprising combination to maintain the tension in the position and give White, who was in bad time trouble, extra difficulties.

3 Rb1
4 Qe2!

It is essential to retain the option of threatening d7 and Qe8 8 in some positions. After $4 \mathrm{Q} \times 55 \mathrm{R} \times \mathrm{a} 45 \mathrm{~d} 7 \mathrm{Ral}$ White would have to play the hopeless $6 \mathrm{~d} 8=\mathrm{Q}+$ to stop the threat of $6 \ldots \mathrm{R} \times \mathrm{b} 1+7 \mathrm{Q} \times \mathrm{b} 1$ c2.

| 4 | $\ldots \mathrm{R} \times \mathrm{a4}$ |
| :--- | :--- |
| $\mathbf{5} \mathrm{~d} 7$ | h 6 ? |

One way to stop 6 Qe8+, but not the best. The correct move was the paradoxical $5 \ldots \mathrm{Rg} 8!6 \mathrm{Bel}(6 \mathrm{Od} 1 \mathrm{Ra} 17 \mathrm{R} \times \mathrm{al} \mathrm{c} 28 \mathrm{Rb} 1$ $\mathrm{c} \times \mathrm{dl}=\mathrm{Q}+9 \mathrm{R} \times \mathrm{d} 1 \mathrm{Rd} 8$, followed by $10 \ldots \mathrm{R} \times \mathrm{d} 7$ wins) Ral 7 Qd 3 $\mathrm{Rd} 88 \mathrm{Kf} 2 \mathrm{R} \times \mathrm{b} 19 \mathrm{Q} \times \mathrm{b} 1 \mathrm{R} \times \mathrm{d} 7$ with a winning position, e.g. 10 Ke 2 Rd 8 (threatening ...Rb8 followed by ...c2) $11 \mathrm{~B} \times \mathrm{c} 3$ (11 Bg3 Rd2+ and $12 \ldots \mathrm{c} 2$ ) $\mathrm{B} \times \mathrm{c} 3$ with $\ldots \mathrm{h} 6$ and $\ldots$ Ra8-al coming up.

$$
\begin{aligned}
& 6 \mathrm{Qe8}+ \\
& 7 \mathrm{~d} 8=\mathrm{Q} ?
\end{aligned}
$$

It is well-known that sealed moves are often mistakes and that is the case here. White had a choice of taking either rook and he chose the wrong one, even though $7 \mathrm{Q} \times \mathrm{b} 8$ does not offer a clear route to equality. Play might continue $7 \mathrm{Q} \times \mathrm{b} 8!\mathrm{c} 2(7 \ldots \mathrm{Ra} 18 \mathrm{Rf1} \mathrm{c2} 9 \mathrm{Q} \times \mathrm{b} 2$ $\mathrm{B} \times \mathrm{b} 210 \mathrm{~d} 8=\mathrm{Q} \mathrm{R} \times \mathrm{f} 1+11 \mathrm{~K} \times \mathrm{f} 1 \mathrm{c} 1=\mathrm{Q}+12 \mathrm{Ke} 2$, with a very drawish position) $8 \mathrm{Q} \times \mathrm{b} 2 \mathrm{~B} \times \mathrm{b} 29 \mathrm{Rf} 1 \mathrm{Ra} 8$ ! (deflecting the bishop is important, as $9 \ldots \mathrm{Ra} 1$ transposes to the line 7...Ra1) 10 Bb 6 (or else 10...Rd8) Ral $11 \mathrm{~d} 8=\mathrm{OR} \times \mathrm{fl}+12 \mathrm{~K} \times \mathrm{fl} \mathrm{cl}=\mathrm{Q}+13 \mathrm{KI} 2(13 \mathrm{Ke} 2 \mathrm{Oh} 1) \mathrm{Bc}^{2} 3$ 14 g 3 ( $14 \mathrm{Qe} 7 / \mathrm{e} 8 \mathrm{Qb} 2+$ ) Qh1 15 Qh 4 and White is in an uncomfortable position, with his queen passively placed and an exposed king. Certainly he still has a lot of work to do before he can gain his halfpoint. After the move played Black has a forced win.

$$
7 \quad \ldots \mathrm{R} \times \mathrm{d} 8!
$$

Black could have forced a draw by 7...c2 $8 \mathrm{Qh} 8+\mathrm{Kg} 69$ Qhe8+. but the move played is very strong.

$$
8 \mathrm{Q} \times \mathrm{a} 4 \quad \mathrm{Rd} 2
$$

Now a carious situation has arisen in which the two pawns are more valuable than the queen. White is handicapped by the vulnerable position of his king on the hack rank.

$$
9 \mathrm{R} \times \mathrm{b} 2 \text { ? }
$$

Capitulation. The critical line is 9 Qb 5 c2 $10 \mathrm{Qf1}$ and now:
(A) $10 \ldots \mathrm{c} \times \mathrm{bl}=\mathrm{Q}$ ? $11 \mathrm{Q} \times \mathrm{b} 1 \mathrm{Rd} 6(10 \ldots \mathrm{Rd} 511 \mathrm{Bc} 1 \mathrm{Rc} 512 \mathrm{Bd} 2$ is also no good) 12 Be 3 ( $12 \mathrm{O} \times 55+$ ? g6 13 Oc 2 Ra 6 and the bishop drops back to g7 to stop the checks) Ra6 $13 \mathrm{Kf2}(13 \mathrm{O} \times \mathrm{f} 5+\mathrm{g}$ g 14 $\mathrm{Od} 7+\mathrm{Bg} 715 \mathrm{Bd} 4 \mathrm{bl}=\mathrm{O}+16 \mathrm{Kf} 2 \mathrm{Ra} 2+17 \mathrm{Kg} 3 \mathrm{Ob} 8+\mathrm{and} 18$. Qt8
wins for Black) g6 (13...Ra1 $14 \mathrm{Q} \times \mathrm{f} 5+\mathrm{g} 615 \mathrm{Qd} 7+$ and 16 Bd 4 ) 14 Oc 2 Bg 7 (threatening 15...Ral) 15 Bcl ! and after both $15 \ldots$ Rb6 16 Qb1, followed by moving the king off the second rank, and $15 \ldots \mathrm{Ra} 2$ 16 Kg 3 White succeeds in giving up his bishop for the pawn with a draw.
(B) 10...Rd5! and now:
(B1) $11 \mathrm{Be} 3 \mathrm{c} \times \mathrm{b} 1=\mathrm{Q} 12 \mathrm{Q} \times \mathrm{b} 1 \mathrm{Ra} 513 \mathrm{Kf} 2 \mathrm{Kg} 8$ ! 14 Qc 2 (with the Black rook on a6, as in A. White would draw by $14 \mathrm{Q} \times f 5$ here) Ral $15 \mathrm{Qc} 8+\mathrm{Kf7} 16 \mathrm{Qd} 7+\mathrm{Kg} 617 \mathrm{Qe} 8+\mathrm{Kh} 7$ and Black wins.
(B2) $11 \mathrm{~g} 4(11 \mathrm{~g} 3 \mathrm{c} \times \mathrm{b} 1=\mathrm{Q} 12 \mathrm{O} \times \mathrm{b} 1$ and not now $12 \ldots$ Ras 13 Be1! but 12..g6! 13 Kg 2 Bg 7 and Black will transfer his rook to al before White's bishop can do anything useful) Ra5 $12 \mathrm{R} \times \mathrm{b} 2 \mathrm{~B} \times \mathrm{b} 2$ $13 \mathrm{Be} 3 \mathrm{Ra} 14 \mathrm{O} \times \mathrm{al} \mathrm{B} \times$ al $15 \mathrm{Bclf} \times \mathrm{g} 4$, followed by $16 \ldots \mathrm{Bf} 6$ and 17... Bg 5 .

| 9 | $\ldots c \times b 2$ |
| :---: | :---: |
| 10 Qb3 | $R d 8$ |
| 11 Qc2 |  |

There is no real defence to the threat of ...Ra8-al, so White tries for perpetual check.
$12 \mathrm{Qb} 1 \quad \ldots \mathrm{Rb} 8$

If $12 \mathrm{Q} \times 45+\mathrm{Kh} 813 \mathrm{Qbl} \mathrm{Ra} 8$ and White is doomed by the position of his king.

## 12 ...g6

White's resources are exhausted. The game finished 13 g 4 Ra 814 Kg2 Ra1 15 Qc2 bl=Q 16 Qc7+ Bg7 17 Bd 4 Qf1 $+18 \mathrm{Kg} 3 \mathrm{f} 4+19$ $\mathbf{K} \times \mathrm{f} 4 \mathrm{Qc} 1+0-1$
(The above amotations are hased on Keres' own excellent notes.)
Finally we come to the subject of underpromotion. It should be emphasised that underpromotion is very rare in over-the-board chess. Naturally I don't count cases where a player moves $\mathrm{P}=\mathrm{R}$ frivolously when the promoted piece has to be captured whatever it is. Genuine situations in which underpromotion is the best move almost always involve playing $\mathrm{P}=\mathrm{N}+$ to gain a tempo, or to fork two pieces. In my own career underpronotion to a knight has occurred twice and in both cases the motive was $\mathrm{P}=\mathrm{N}+$ to tork king and queen! I have also seen $d$ situation in which a $Q+N$ battery was aimed at the White king and the obvious $\mathrm{P}=\mathrm{O}$ allowed a perpetual check, hut $\mathrm{P}=\mathrm{N}$ attacked the Black queen and won the game. I know of only one case of underpromotion to a bishop in a game. although there are quite a few cases where underpromotion occurred in the notes! As for underpromotion to a rook. I know ot no case in which such a move was the only way to win.

The next two positions demonstrate typical situations in which gaining a tempo is the motivation for underpronotion.

55
w


Teschner-K. Richter, Berlin 1951

## $1 \mathrm{Rc} 3+$

$1 \mathrm{~g} 8=\mathrm{Q} \mathrm{R} \times \mathrm{g} 82 \mathrm{Rc} 3+\mathrm{Kb} 43 \mathrm{~K} \times \mathrm{c} 2 \mathrm{Rg} 2+$ and $1 \mathrm{f} 7 \mathrm{~b} 1=\mathrm{Q} 2 \mathrm{Rc} 3+$ Ka 4 are winning for Black, so this move is the only chance.

1
..Ka4
Not $1 \ldots \mathrm{Ka} 22 \mathrm{R} \times \mathrm{c} 2$ nor $1 \ldots \mathrm{~Kb} 42 \mathrm{f} 7$.

$$
2 \mathrm{~g} 8=\mathrm{Q} \quad \mathrm{cl}=\mathrm{N}+!
$$

Black avoids $2 \ldots \mathrm{R} \times \mathrm{g} 83 \mathrm{~K} \times \mathrm{c} 2$ with a draw. Now, hoever, White has nothing better than $3 \mathrm{R} \times \mathrm{cl} \mathrm{b} \times \mathrm{cl}=\mathrm{N}+!4 \mathrm{Ke} 4 \mathrm{R} \times \mathrm{g} 85 \mathrm{Kf} 5 \mathrm{Nd} 36$ f7 Rf8 $7 \mathrm{Kf6} \mathrm{Ne5}$, when Black rounds up the remaining White pawns. So. . .


Donnelly-Lewis, Salisbury 1965
Black cannot win by $1 \ldots \mathrm{R} \times \mathrm{d} 7$, e.g. $2 \mathrm{Rd6} \mathrm{Rb} 73 \mathrm{Rd} 1 \mathrm{Bf} 24 \mathrm{Bf} 4$ $\mathrm{Re} 7(4 \ldots \mathrm{R} \times \mathrm{b} 2$ is a clear draw) 5 Ke 2 and Black must be careful or he will be worse!

Threatens to promote and attacks the rook on b6. If White now plays $2 \mathrm{~d} 8=\mathrm{Q}$ with the idea $2 \ldots \mathrm{R} \times \mathrm{d} 83 \mathrm{Rb} 7+$ and $4 \mathrm{~K} \times \mathrm{e} 2$ Black replies $2 \ldots$ e $=\mathrm{N}+$ ! and $3 \ldots \mathrm{R} \times \mathrm{d} 8$, thereby picking up a prece. But White has a witty move.

$$
\mathbf{2 d 8}=\mathbf{N}+!\quad \text { Ke7 }
$$

Other moves are no better: $2 \ldots \mathrm{R} \times \mathrm{d} 83 \mathrm{Rb} 7+$ and White is better or $2 \ldots \mathrm{Kg} 7$ ( $2 \ldots \mathrm{Kf8} 3 \mathrm{Rf} 6+$ transposes after 3...Ke7 or $3 \ldots \mathrm{Kg} 7$ ) 3 Re6 $\mathrm{R} \times \mathrm{d} 84 \mathrm{R} \times \mathrm{e} 2 \mathrm{R} \times \mathrm{b} 85 \mathrm{Rg} 2+$ drawing.

| 3 Re6+ | $\mathrm{K} \times \mathrm{d} 8$ |
| :--- | :--- |
| $4 \mathrm{R} \times \mathrm{e} 2$ | $\mathrm{R} \times \mathrm{e} 2$ |

$5 \mathrm{~K} \times \mathrm{e} 2$

$$
\frac{1}{2}-\frac{1}{2}
$$

With all the pawns on the same side and such limited material White has no real winning chances.

The following study, which has a very natural initial position, nevertheless ends with a surprising underpromotion.

V. Yakimchik, Shakhmaty o SSSR 1966

$$
1 \mathrm{e} 6 \quad \mathrm{~g} 3
$$

Allows the bishop to cover e8 from h5 as well as b5 and serves to help confine the White king. If $1 \ldots \mathrm{Ba}_{4} 2 \mathrm{Bf} 7 \mathrm{Bb} 33 \mathrm{Bg} 6+$ and 4 e 7 promotes.

## 2 Br 7

Not the hasty 2 e 7 Bh 53 Bb 3 Be 8 and the Black king captures the e-pawn.
$2 \ldots \mathrm{Bb} 3$ still fails to $3 \mathrm{Bg} 6+$, so it seems that there is no way to prevent 3 e 7 , but $2 \ldots \mathrm{Ke} 3$ sets a cunning trap.

## 3 Be8!!

Why not 3 e 7 ? Because then $3 \ldots \mathrm{Kf} 2!4 \mathrm{e} 8=\mathrm{Q}$ ( 4 Bd 5 Ba 4 and the White bishop cannot quit the long diagonal to cover the e8 square due to ... Bc 6 ) Bf 3 and incredibly White cannot win, as $5 \mathrm{Bd} 5 \mathrm{~B} \times \mathrm{g} 2+$ ! $6 \mathrm{~B} \times \mathrm{g} 2$ is stalemate. Also White cannot free his king by 3 Kgl as 3 ... Bb 3 draws, e.g. 4 Bg 8 ( $4 \mathrm{Kf1} \mathrm{Kf} 45 \mathrm{Ke} 2 \mathrm{Bd} 56 \mathrm{Bg} 8 \mathrm{~B} \times \mathrm{g} 2$ or 5 Bg8 Ba4 6 Ke 2 Bc 67 e7 Be8, picking up the e-pawn) Ba4 5 Kfl ( 5 $\mathrm{Bf7} \mathrm{Bb} 3$ repeats) $\mathrm{Kf4}$ transposing to $4 \mathrm{Kf1}$ in this note. The move played intends 4 Bc6, stopping Black's swindles and preparing to advance the pawn.

$$
3 \text {...Kf2 }
$$

After 3...Bf3 4 Kg 1 White continues with 5 c 7 and 6 B moves.

## 4 Bc6

Necessary as $4 \ldots$ Bf3 was a threat. Now it seems to be all over, but Black still has one shot left.

| 4 | ...Be2! |
| :---: | :---: |
| $5 \mathrm{e}^{7}$ | Bf1 |
| $6 \mathrm{e} 8=\mathrm{N}$ ? |  |

The only move to win! 6 Be 4 Bb 5 or $6 \mathrm{e} 8=\mathrm{Q} \mathrm{B} \times \mathrm{g} 2+$ or $6 \mathrm{e} 8=\mathrm{B}$ are all draws, the last because two white-squared bishops are incapable of forcing the exchange of Black's bishop. After $6 \mathrm{e} 8=\mathrm{N}$ White wins easily by bringing the knight back to e 4 .

To end this chapter let's look at the position mentioned earlier in which underpromotion to a bishop occurred.


Reshko-Kaminski, I/SSR 1972
Normally White would win casily with an extra outside passed
pawn on the seventh rank, but here he is handicapped by the lamentable position of his king. Black has threats of mating on e8 or by ...g6 which severely restrict the activity of the White queen.

## $1 \mathrm{Qe7}$

If 1 Qf8 (1 Qg6 +?? Kg8 even leads to a win for Black!) Qe4 and the threat of $2 \ldots \mathrm{~g} 6+$ forces 2 Qf7.

## 1 ...Qd5?

Black had very good drawing chances with 1...Qa8!, e.g. 2 Qe3 (2 Qd7 Qe4 and again White can only repeat moves by Qf7, being almost in a state of zugzwang) Qb7 (2...Qc8 is answered by 3 Qe4! winning, after $3 \ldots \mathrm{Qc} 7 / \mathrm{d} 74 \mathrm{~g} 5$, for example, rather than by 3 g 5 ? $\mathrm{Q} \times \mathrm{f} 5$, when Black wins) $3 \mathrm{~g} 5 \mathrm{~h} \times \mathrm{g} 54 \mathrm{~h} \times \mathrm{g} 5 \mathrm{Oh} 1+5 \mathrm{Kg} 4 \mathrm{Qg} 2+6$ $\mathrm{Kf4}$ ( $6 \mathrm{Qg} 3 \mathrm{Qe} 4+$ is perpetual check) $\mathrm{Q} \times \mathrm{g} 5+7 \mathrm{Ke} 4 \mathrm{Qg} 4+8 \mathrm{Kd} 3$ $\mathrm{Qd} 1+$ (of course not $8 \ldots \mathrm{Q} \times \mathrm{f5}+9 \mathrm{Qe} 4$ ) and Black should have little trouble holding the game.

## 2 Qe8!

The square Black should have kept covered. From e8 the queen stops all the mates and ensures the promotion of the pawn.

$$
\begin{aligned}
& 2 \\
& 3 \mathrm{a} 8=\mathrm{B}!
\end{aligned} \quad \ldots \mathrm{Qb} 7
$$

The unique winning move. If $3 \mathrm{a} 8=\mathrm{Q} / \mathrm{R} \mathrm{Qf} 7+$ forces stalemate, while if $3 \mathrm{a} 8=\mathrm{N} \mathrm{Qa} 7$ ! (the only move to keep the knight imprisoned) 4 g 5 (4 Qf8 Qb7 forces 5 Oe 8$) \mathrm{h} \times \mathrm{g} 55 \mathrm{~h} \times \mathrm{g} 5 \mathrm{f} \times \mathrm{g} 56 \mathrm{Qe} 4(6 \mathrm{~K} \times \mathrm{g} 5 \mathrm{Qg} 1+$ is an immediate draw, as White cannot move on to the e-file) Qf7 + $7 \mathrm{~K} \times \mathrm{g} 5(7 \mathrm{Kg} 4 \mathrm{~g} 68 \mathrm{Qh} 1+\mathrm{Kg} 8) \mathrm{Qf} 6+8 \mathrm{Kh} 5(8 \mathrm{Kg} 4 \mathrm{~g} 69 \mathrm{Qb} 7+\mathrm{Kh} 6$ $10 \mathrm{Qh} 1+\mathrm{Kg} 711 \mathrm{Qb} 7+$ is also a draw) Of7 + with perpetual check.

$$
3
$$

...Qb3
To prevent Bd 5 for as long as possible.

$$
4 \text { Qd7 } \quad \text { Qg8 }
$$

Or 4...Qc2 5 Bd 5 followed by Bf7 and $\mathrm{Bg} 6+$.
5 Bd5

## 4 Positional draw

By a positional draw I mean a position in which although one side has enough extra material to win the game under normal circumstances and is not under direct attack, some special feature of the position prevents him from exploiting his material advantage. Quite often this "special feature" takes the form of a blockade.


Kobaidze~Cereteli, USSR 1969

Black's knight is in serious trouble, since after $1 \ldots \mathrm{Na} 82 \mathrm{Bd} 7$ and 3 Bc6 there is no escape. But Black proves that he doesn't need the knight!

$$
1 \text {...Ke8! }
$$

1...Na8 doesn't lose since Black can give up the knight later if necessary, but Black decides to clear up the position at once.

$$
2 B \times b 6
$$

Ke7
$\frac{1}{8}-\frac{1}{2}$
Black simply moves his bishop up and down the b4-el diagonal and White can make absolutely no headway. Black's queenside pawns form a box from which the bishop on bo can never escape.

When the position is closed there is often the possibility for a sacrifice to seal the last gaps, as in the next position.


Paulic-Vasovic, Yugoslavia 1976

## 1

 ...Nc5!Black must play this soon or his position will deteriorate past repair, e.g. 1...Kb7 (if $1 \ldots \mathrm{R} \times$ a4 $2 \mathrm{~B} \times a 4$ Black must play $2 \ldots$ Nc5! or he loses the b-pawn) $2 \mathrm{R} \times \mathrm{a} 7+\mathrm{K} \times \mathrm{a} 73 \mathrm{Ba} 4 \mathrm{Nb} 8$ ? (3...Nc5! draws) 4 Be 8 followed by a king march to b5 winning the b-pawn.

| $2 \mathrm{R} \times \mathrm{a} 7$ |  | $\mathrm{~K} \times \mathrm{a} 7$ |
| :--- | :--- | :--- |
| $3 \mathrm{~b} \times \mathrm{c5}$ |  | $\mathrm{~d} \times \mathrm{c5}$ |

Black's drawing plan is to put his king on c7 and pass with his bishop between d6 and e7. If at any point White plays Bh6, the move ...Bf8 force White to retreat.

A. Petrosian-Hazai, Belgium 1970

Black's position is very bad. White has the straightforward plan of an assault on the weak a-pawn by $\mathrm{Qd} 2, \mathrm{~Kb} 3, \mathrm{Nc} 3, \mathrm{Ka} 4$ and $\mathrm{Na} 2-\mathrm{cl}-$ b 3 and $\mathrm{Q} \times$ a5, when White should have little trouble winning. Black has no real counter-chances, so he plays a remarkably cheeky move.

This move has no function apart from offering White the chance to take the queen. White should just play Qd2, Kb3 and so on. but the sight of a whole queen en prise must have gone to his head...

$$
\begin{aligned}
& 2 \mathrm{~N} \times \mathrm{b} 6+? \quad \mathrm{c} \times \mathrm{b} 6 \\
& 3 \mathrm{~h} 4
\end{aligned}
$$

The only chance, for otherwise Black seals the whole board by ...h4.
3 Qd2 $\quad \ldots \mathrm{g} \times \mathrm{h} 4$

Or indeed any other move-the reply is the same.

$$
4 \text {...h3! }
$$

Whether White takes the pawn or allows ...h2 the result is the samea complete blockade.

$$
5 \mathrm{~g} \times \mathrm{h} 3{\underset{\frac{1}{2}-\frac{1}{2}}{ } \mathrm{~h} 4}
$$

A rather more unusual type of positional draw occurs when the side down on material manages to set up a bind which prevents any of the opposing pieces becoming active. The following example explains better than words.


Keres--Najdorf, Zurich 1953
White is a pawn down. but his active pieces give him some drawing chances.

$$
1 \mathrm{Rc} 7 \%
$$

Not only wasting a tempo, but also blocking the passed c-pawn White will obtain after Black's queenstde breakthrough by ...ct b×c4 b4. After $1 \mathrm{Kfl} \mathrm{c} 42 \mathrm{~b} \times \mathrm{c} 4 \mathrm{~b} 4(2 \ldots \mathrm{~b} \times \mathrm{c} 43 \mathrm{Rc} 7) 3 \mathrm{Bcl} \mathrm{b} 34 \mathrm{Rd} 2$ and 5 Bb 2

White would have good drawing chances, while $3 \ldots \mathrm{Rc} 84 \mathrm{Rb} 7 \mathrm{R} \times \mathrm{c} 4$ 5 Bd 2 Bf 86 g 5 in this line leaves Black paralysed.

| 1 | $\ldots \mathrm{c4}$ |
| :--- | ---: |
| $2 \mathrm{~b} \times \mathrm{cc} 4$ | $\mathrm{b4}$ |
| 3 Bel | $\mathrm{e4}$ |

Or eise 4 Bb 2 effectively blockades the $b$ - and e-pawns.

| $4 \mathrm{c5}$ | b 3 |
| :--- | :--- |
| 5 c 6 | b 2 |
| $6 \mathrm{~B} \times \mathrm{b} 2$ | $\mathrm{R} \times \mathrm{b} 2$ ? |

This move throws away the win, which Black could have assured by $6 \ldots \mathrm{~B} \times \mathrm{b} 27 \mathrm{Rd} 7 \mathrm{Rc} 88 \mathrm{c} 7 \mathrm{Bf} 69 \mathrm{Kfl}$ (White has nothing better) Kf8 10 Ke 2 (or $10 \mathrm{R} \times \mathrm{h} 7 \mathrm{Bg} 7$, winning the c-pawn) Be 7 followed by $11 \ldots \mathrm{Ke} 8$ and again the c-pawn disappears.

## 7 Rd7

$$
\frac{1}{2}-\frac{1}{2}
$$

A surprising decision at first sight. but the only way to stop the pawn is by $7 \ldots \mathrm{Rc} 28 \mathrm{c} 7$ (intending $\mathrm{Rd} 8+$ ) Bf8, when White marks time with his king by $9 \mathrm{Kf1}$. Black cannot move his king or bishop, his rook can only travel up and down the c-file and advancing pawns can achieve nothing without the help of the other pieces, so that despite Black's considerable material plus he is unable to do more than draw.


This endgame shows an imaginative application of the positional draw idea. White is a clear piece up and is all set to start driving Black back by Rf6+, but it is Black's move first!

$$
{ }_{2}^{1} \mathrm{R} \times \mathrm{h} 4 \quad \ldots \mathrm{~h} 4!
$$

Or 2 Rf6 $+\mathrm{Kh} 53 \mathrm{Rh} 6+$ ( 3 g 6 Rg 8 wins the pawn at once) Kg 44 g 6

Kf5 5 g 7 ( $5 \mathrm{Nd} 6+\mathrm{Kf6!} 6 \mathrm{Nf} 7 \mathrm{Rc} 8+$ and $7 \ldots \mathrm{Kg} 7$ ties White up completely and Black can just advance the h-pawn) $\mathrm{Rg} 86 \mathrm{Nd} 6+\mathrm{Kg} 5$ $7 \mathrm{Nf} 7+\mathrm{Kf5}$ with a draw by repetition.

Now White can only move his king. Black's rook can oscillate up and down the d-file, but must steer clear of certain squares (e.g. d5, because of $\mathrm{Ng} 3+$ ); however $\mathrm{d} 1, \mathrm{~d} 3, \mathrm{~d} 7$ and d 8 are safe, so Black cannot be forced into zugzwang.

| 3 Kc 3 | Rd1 |
| :--- | :--- |
| $4 \mathrm{Kc4}$ | Rd8 |
| $5 \mathrm{Kc5}$ | Rd3 |
| $6 \mathrm{Kc6}$ | Rd1 |
| 7 Kc 7 | Rd3 |
| 8 RhH |  |

The last winning try. White threatens $9 \mathrm{Rf1}+$ and if $8 \ldots \mathrm{~K} \times \mathrm{e} 4$ ? then 9 Rg 1 is decisive.

$$
\begin{aligned}
& 8 \quad \text {...Re3! } \\
& \frac{1}{2}-\frac{1}{2}
\end{aligned}
$$

since 9 Rh 4 repeats, while $9 \mathrm{Rg} 1 \mathrm{R} \times \mathrm{e} 410 \mathrm{~g} 6 \mathrm{Re} 7+$ and $11 \ldots \mathrm{Rg} 7$ draws.

We end this chapter with a study having a natural starting position. but an extraordinary finish!

G. Nadareishwili, Georgia-50, 1970

White has only a limited choice for his first move. since he must prevent ...b3.

## 1 Bc 4

Not 1 Kc 2 ? (or 1 Rb 8 ? Kb2 $2 \mathrm{R} \times \mathrm{b} 4+\mathrm{Ka} 3$ and queens) $\mathrm{Rc} 5+2 \mathrm{~Kb} 3$
$\mathrm{Rc} 3+3 \mathrm{~K} \times \mathrm{b} 4 \mathrm{~Kb} 24 \mathrm{Ra} 8 \mathrm{Rb} 3+5 \mathrm{Kc} 4 \mathrm{Ra} 36 \mathrm{Rb} 8+\mathrm{Kcl}$ and Black wins.

$$
1 \quad \text {...Rc5 }
$$

White draws after $1 \ldots \mathrm{~Kb} 12 \mathrm{Rb} 8!\mathrm{Ra} 43 \mathrm{~B} \times \mathrm{a} 2+\mathrm{K} \times \mathrm{a} 24 \mathrm{Kc} 2 \mathrm{Ka} 3$ 5 Kb 1 , or $1 \ldots \mathrm{~Kb} 22 \mathrm{Rf} 2+\mathrm{Kb} 13 \mathrm{Bd} 3+\mathrm{Kal} 4 \mathrm{Kc} 2$, when Black would have to resort to $4 \ldots \mathrm{~b} 3+5 \mathrm{~K} \times \mathrm{b} 3 \mathrm{Ra} 3+$ ! to avoid losing! After $1 \ldots$ Rc5 White must move his bishop down the long diagonal, since 2 $\mathrm{B} \times \mathrm{a} 2$ ? $\mathrm{K} \times \mathrm{a} 2$ and 2 Rf 4 ? $\mathrm{R} \times \mathrm{c} 4$ ! $3 \mathrm{R} \times \mathrm{c} 4 \mathrm{~b} 34 \mathrm{Rcl}+\mathrm{Kb} 2$ are winning for Black. But to which square? Certainly not 2 Bf 7 as then $2 \ldots \mathrm{~Kb} 2$ wins, but there appears to be little to choose between e6 and g 8 .

## 2 Bg 8 !!

The point is only revealed much later. As $2 \ldots \mathrm{~Kb} 2$ fails to $3 \mathrm{Rf} 2+$ there is only one real choice for Black.
${ }^{\mathbf{2}} \mathbf{3} \mathbf{R b 8}$ ! $\quad$...Kb1

White avoids 3 Rf 4 ? b3 $4 \mathrm{~B} \times \mathrm{b} 3 \mathrm{al}=\mathrm{Q}$ or $3 \mathrm{Bh} 7+\mathrm{Kb} 24 \mathrm{Rf} 2+\mathrm{Ka} 3$, winning for Black.

| 3 | ...Rc1+ |
| :---: | :---: |
| 4 Kd 2 | Re2+ |
| $5 \mathrm{Kd1}$ | $\mathrm{al}=\mathrm{Q}$ |
| $6 \mathrm{R} \times \mathrm{b4}+$ | Rb2 |

This looks winning for Black as $7 \mathrm{Bh} 7+\mathrm{Ka} 2$ is check, but there is a surprising resource which just saves the day.

## 7 Re4!

Black cannot win. White threatens 8 Rc1 mate and after $7 \ldots$ Rd2 + (7...Ka2 $+8 \mathrm{Rc} 1+$ and $7 \ldots \mathrm{Rc} 28 \mathrm{Rb} 4+\mathrm{Rb} 29 \mathrm{Rc} 4$ are clear draws, but in the second line White must avoid $8 \mathrm{R} \times \mathrm{c} 2 \mathrm{Od} 4+9 \mathrm{Rd} 2 \mathrm{Qg} 1+$, when Black wins) $8 \mathrm{~K} \times \mathrm{d} 2 \mathrm{Qa} 5+9 \mathrm{Ke} 2!\mathrm{Qh} 5+10 \mathrm{Kf} 2$ Black cannot pick up the bishop with a fork. However, if White had played 2 Be6? instead of 2 Bg 8 ! Black could win at this point by $7 \ldots \mathrm{Rb} 6!8 \mathrm{Rc} 1+$ $\mathrm{Ka} 29 \mathrm{R} \times \mathrm{al} \mathrm{Rd}_{6}+$, followed by $10 \ldots \mathrm{R} \times \mathrm{e} 6+$ and $11 \ldots \mathrm{~K} \times \mathrm{a} 1$.

## 5 Breakthrough

Although the idea of a sacrificial breakthrough crops up more frequently in the middlegame than in the endgame, the strength of passed pawns in the endgame can provide sufficient motivation for a sacrifice. In king and pawn endings, for example, a passed pawn suddenly created on the other side of the board will often be impossible to stop. Everybody knows that with pawns on a5, b5 and c5 against pawns on $a 7, b 7$ and $c 7$ White can force a passed pawn with 1 b 6 !, but combinations of this type can still catch people out, as the next position proves.


Weinstein-Rohde, Lone Pine 1977
White has an outside passed pawn coming soon on the queenside, so he is sure to win unless Black can achieve something quickly on the other side of the board.

$$
1 \text {...h4?? }
$$

Missing his chance. 1...f4! would have won, e.g. $2 \mathrm{~g} \times \mathrm{f} 4$ (or $2 \mathrm{a} 5 \mathrm{~b} \times \mathrm{a} 5$ $3 \mathrm{~b} \times$ a5 h4 and Black can stop White's pawn while White cannot prevent ...f3, followed by the promotion of the h-pawn) $g \times f 43 \mathrm{Kd} 4$ e3! $4 \mathrm{f} \times \mathrm{e} 3$ (if $4 \mathrm{Kd} 3 \mathrm{f} 3!5 \mathrm{~g} \times \mathrm{f} 3 \mathrm{~h} 4$ and Black wins) $\mathrm{f} 3!5 \mathrm{~g} \times \mathrm{f} 3 \mathrm{~h} 4$ and the pawn cannot be stopped as f 3 is blocked by White's own pawn.

| $\mathbf{2 g} \times \mathrm{h} 4$ | $\mathrm{~g} \times \mathrm{h} 4$ |
| :--- | :--- |
| $\mathbf{3} \mathrm{Kd} 4$ |  |

White has prevented the breakthrough and won after 3...Ke6 4 a5
b $\times$ a 55 b $\times$ a 5 Kd6 6 a6 Kc6 7 Ke5 Kb6 8 K $\times 55$ K $\times a 69$ K $\times$ e4 1-0.
The following ending is more complex. Grigoriev was one of the world's greatest experts on king and pawn endings (see the position in the Introduction, for example), but even he misanalysed this position in his book Finali di Scacchi (U. Mursia \& Co., 1965).


Zubarev-Grigoriev, USSR Ch. 1925
1
...b5
Clearly best. Black must make his own passed pawn as quickly as possible.

$$
2 a \times b 5+\quad K b 6
$$

Black must avoid losing a tempo to the check after ...a4 $b \times a 4$, for example $2 \ldots \mathrm{~K} \times \mathrm{b} 5$ ? $3 \mathrm{Ke6} \mathrm{c} 4(3 \ldots \mathrm{a} 44 \mathrm{~b} \times \mathrm{a} 4+$ and after $4 \ldots \mathrm{~K} \times \mathrm{a} 45$ Kd 5 or $4 \ldots \mathrm{~Kb} 45 \mathrm{Kd} 5$ the Black pawns are halted) $4 \mathrm{~b} \times \mathrm{c} 4+\mathrm{K} \times \mathrm{c} 4$ $5 \mathrm{f} 4 \mathrm{a} 46 \mathrm{f5} \mathrm{a} 37 \mathrm{f} 6 \mathrm{a} 28 \mathrm{f7al}=\mathrm{Q} 9 \mathrm{f} 8=\mathrm{Q}$ and White draws comfortably $(9 \ldots \mathrm{Qe} 1+10 \mathrm{Kd} 7)$. However Grigoriev did not take his idea of avoiding a pawn check to its logical conclusion. Had he played $2 \ldots \mathrm{~Kb} 7$ !! then the win would have presented far fewer difficulties, e.g 3 Ke 7 a 4 $4 \mathrm{~b} \times \mathrm{a} 4 \mathrm{c} 45 \mathrm{f} 4$ (after 5 a 5 White's f-pawn doesn't reach the 7th rank) $\mathrm{d} 36 \mathrm{c} \times \mathrm{d} 3 \mathrm{c} \times \mathrm{d} 37 \mathrm{f} 5 \mathrm{~d} 28 \mathrm{f} 6 \mathrm{~d} 1=\mathrm{Q} 9 \mathrm{f} 7 \mathrm{Qe} 2+$ etc., forcing the king to f 8 and then playing ...Kc7. Compared with the note to Black's 5 th move White's pawns are too far back to sacrifice themselves.

## 3 Ke7

In the game White adopted the inferior defence $\mathbf{3}$ Ke6, when the finish was $3 \ldots \mathrm{a} 4$ (3...c4? $4 \mathrm{~b} \times \mathrm{c} 4 \mathrm{a} 45 \mathrm{Kd} 6 \mathrm{a} 36 \mathrm{c} 5+\mathrm{K} \times \mathrm{b} 57 \mathrm{c} 6 \mathrm{a} 2$ $8 \mathrm{c} 7 \mathrm{al}=\mathrm{Q} 9 \mathrm{c} 8=\mathrm{Q} \mathrm{Qa} 3+$ and $10 \ldots \mathrm{Q} \times \mathrm{f} 3$ is only a draw) $\mathbf{4} \mathbf{b} \times \mathbf{a} 4 \mathrm{c} 4$ $5 \mathrm{f4} \mathbf{d 3 6 c \times d} \mathbf{c} \mathrm{c} \times \mathrm{d} 37 \mathrm{f5}$ (giving up the queenside pawns with a5 + makes no difference) $\mathbf{d 2} \mathbf{8} \mathbf{f 6} \mathbf{d l}=\mathrm{Q} 9 \mathrm{f} 7(9 \mathrm{Ke} 7 \mathrm{Qe} 2+10 \mathrm{Kd7} \mathrm{Qf} 3$ $11 \mathrm{Ke} 7 \mathrm{Qe} 4+12 \mathrm{Kd} 7 \mathrm{Qf} 5+13 \mathrm{Ke} 7 \mathrm{Qe} 5+14 \mathrm{Kf7} \mathrm{Kc} 7$ and wins) Qd8 10 Kf5 Qd6 0-1.

| 3 | $\ldots \mathrm{a4}$ |
| :--- | ---: |
| $4 \mathrm{~b} \times \mathrm{a4}$ | $\mathrm{c4}$ |
| $5 \mathrm{f4}$ | d 3 |

Now Grigoriev gave the line $6 \mathrm{c} \times \mathrm{d} 3 \mathrm{c} \times \mathrm{d} 37 \mathrm{f5} \mathrm{~d} 28 \mathrm{f} 6 \mathrm{~d} 1=\mathrm{Q} 9 \mathrm{f} 7$ $\mathrm{Qe} 2+10 \mathrm{Kd} 7$ Qf3 $11 \mathrm{Ke7}$ Qe4+ $12 \mathrm{Kd7}$ Qf5 + $13 \mathrm{Ke7} \mathrm{Qe} 5+14$ Kd7 Qf6 15 a $5+$ (or 15 Ke 8 Qe6+ $16 \mathrm{Kf8} \mathrm{Kc7} 17 \mathrm{~b} 6+\mathrm{K} \times \mathrm{b} 618$ a5+ Kc6 transposing to the main line) $\mathrm{K} \times \mathrm{b} 516 \mathrm{Ke} 8$ Qe6 $+17 \mathrm{Kf8} \mathrm{Kc} 6$ 18 a6 Kd7 $19 \mathrm{a} 7 \mathrm{Qd} 520 \mathrm{Kg} 7 \mathrm{Qg} 2+21 \mathrm{Kf8} \mathrm{Qa} 8+22 \mathrm{Kg} 7 \mathrm{Ke} 7$ and Black wins. However, there is a substantial improvement for White in $6 \ldots \mathrm{c} \times \mathrm{d} 37 \mathrm{a5}+$ ! (trying to get rid of the queenside pawns as early as possible) and now:
(A) $7 \ldots \mathrm{Kc} 5(7 \ldots \mathrm{~K} \times \mathrm{a} 58 \mathrm{f} 5 \mathrm{~d} 29 \mathrm{f} 6 \mathrm{dl}=\mathrm{Q} 10 \mathrm{f} 7$ leads to a draw because although Black can force the king to 88 , his only reasonable king moves are to b 5 and b6, both of which allow White to set up his usual stalemate; note that 8 b 6 ? $\mathrm{K} \times \mathrm{b} 69 \mathrm{f} 6 \mathrm{~d} 1=\mathrm{Q} 10 \mathrm{f} 7 \mathrm{Qe} 2+11 \mathrm{Kf8} \mathrm{Qg} 212$ Ke 7 Qg7 13 Ke8 Kc7 wins for Black) 8 b6 Kc6 9 a6! d2 ( $9 \ldots \mathrm{~K} \times \mathrm{b} 610$ a7draws) $10 \mathrm{a} 7 \mathrm{~Kb} 711 \mathrm{f} 5 \mathrm{dl}=\mathrm{Q} 12 \mathrm{f} 6 \mathrm{Qe} 1+(12 \ldots \mathrm{Qe} 2+13 \mathrm{Kf} 8) 13 \mathrm{Kf} 8$ Qb4+ $14 \mathrm{Ke} 8 \mathrm{Qb} 5+15 \mathrm{Kf} 8 \mathrm{Qc} 5+16 \mathrm{Ke} 8 \mathrm{Qe} 5+17 \mathrm{Kf} 7$ and Black can make no progress as he can never capture the pawn on b6.
(B) $7 \ldots \mathrm{Kc} 78 \mathrm{~b} 6+\mathrm{Kb} 8$ (if the king moves elsewhere White plays a6 transposing to A) $9 \mathrm{a} 6 \mathrm{~d} 210 \mathrm{a} 7+$ and $11 \mathrm{f} 5 \mathrm{dl}=\mathrm{Q} 12 \mathrm{f} 6$ transposing to A again.
(C) $7 \ldots \mathrm{Ka} 7$ ! $8 \mathrm{~b} 6+\mathrm{Ka} 69 \mathrm{~b} 7 \mathrm{Ka} 7$ ! (if $9 \ldots \mathrm{~K} \times \mathrm{b} 710 \mathrm{a} 6+\mathrm{Ka} 811 \mathrm{f} 5 \mathrm{~d} 2$ $12 \mathrm{f} 6 \mathrm{dl}=\mathrm{Q} 13 \mathrm{f} 7$ and the Black king is too far away for him to win) $10 \mathrm{f} 5 \mathrm{~d} 211 \mathrm{f} 6 \mathrm{~d} 1=\mathrm{Q} 12 \mathrm{f} 7 \mathrm{Qe} 2+13 \mathrm{Kd} 7 \mathrm{Qf} 314 \mathrm{Ke} 7 \mathrm{Qe} 4+15 \mathrm{Kd} 7$ Qf5 + 16 Ke 7 Qe5 $+17 \mathrm{Kd} 7 \mathrm{Qf6} 18 \mathrm{Ke} 8$ Qe6 $+19 \mathrm{Kf8} \mathrm{~K} \times \mathrm{b} 720 \mathrm{a} 6+$ Kc7 21 a 7 and the Black king is one square foo far away for Black to win.
So $6 \mathrm{c} \times \mathrm{d} 3 \mathrm{c} \times \mathrm{d} 3$ is a draw, but Black van win!

$$
6 \mathrm{c} \times \mathrm{d} 3 \quad \mathrm{c} 3!
$$

Now White is left with a d-pawn even if he gives away the a- and b-pawns.

| $7 \mathrm{f5}$ | c2 |
| :--- | :--- |
| $8 \mathrm{f6}$ | $\mathrm{cl}=\mathrm{Q}$ |
| $9 \mathrm{f7}$ | $\mathrm{Qc5}+$ |

and Black wins after $10 \mathrm{Ke8}$ Qe5 ${ }^{\text {* }} 11 \mathrm{Kd7}$ Qf6 12 Ke 8 Qe6+ $13 \mathrm{Kf8}$ Kc5 14 b6 (or else ...Kd6) K $\times$ b6 15 a5 + (otherwise 15...Kc7-d7 wins) $\mathrm{Kc} 716 \mathrm{a} 6 \mathrm{Kd} 717 \mathrm{a} 7 \mathrm{Qh} 3!18 \mathrm{Kg} 8 \mathrm{Qg} 2+19 \mathrm{Kf8} \mathrm{Qa} 8+$ and 20...Kc7.


Bonner-Medina, Haifa Olympiad 1976
Knights are especially clumsy when they are matched against a passed rook's pawn and this factor allows Black to bring the game to a sudden conclusion.

$$
\begin{aligned}
& 1 \\
& 2 \mathrm{~b} \times \mathrm{c} 3
\end{aligned} \quad \ldots \mathrm{Nc} 3!
$$

White's knight is trapped and $2 \mathrm{~N} \times \mathrm{c} 3 \mathrm{~d} \times \mathrm{c} 33 \mathrm{~b} \times \mathrm{c} 3$ a4 also promotes a pawn.


Alburt-Lerner, USSR 1978

It is not immediately clear who has the advantage in this position. White's passed pawn is further advanced but is blockaded for a few moves at least and Black's king, moreover, is well placed to support
his own passed pawn. In view of this one might assess the position as good for Black, but White has a very surprising combination available.

$$
1 \mathrm{~N} \times \mathrm{c} 5!!
$$

It seems incredible that this can be sound but Black seems to have no defence.

| 1 | $\quad . . b \times c 5$ |
| :--- | :--- |
| $2 \mathrm{b4}$ | $\mathrm{a} \times \mathrm{b4}$ |

After $2 \ldots \mathrm{Nd} 7(2 \ldots \mathrm{c} \times \mathrm{b} 43 \mathrm{c} 5 \mathrm{~b} 3+4 \mathrm{~K} \times \mathrm{b} 3 \mathrm{Ne} 45 \mathrm{Kc} 4$ and $2 \ldots \mathrm{e} 43$ $\mathrm{b} \times \mathrm{c} 5 \mathrm{Kf} 24 \mathrm{c} 6 \mathrm{e} 35 \mathrm{~d} 7 \mathrm{e} 26 \mathrm{~d} 8=\mathrm{Q} \mathrm{el}=\mathrm{Q} 7 \mathrm{Q} \times \mathrm{f} 6+$ are both winning for White) $3 \mathrm{~b} \times \mathrm{a} 5 \mathrm{Kf} 24 \mathrm{a} 6 \mathrm{e} 45 \mathrm{a} 7 \mathrm{e} 36 \mathrm{a} 8=\mathrm{Q}$ e2 $7 \mathrm{Qe} 4 \mathrm{e} 1=\mathrm{Q} 8$ $\mathrm{Q} \times \mathrm{e} 1+\mathrm{K} \times \mathrm{e} 19$ a5 Nb8 10 Kc 3 (not $10 \mathrm{a} 6 \mathrm{~N} \times \mathrm{a} 611 \mathrm{~d} 7 \mathrm{Nb} 4+$ and $12 \ldots$ Nc6), Black cannot prevent 11 a 6 , forcing a pawn through.

| $3 \mathrm{a5}$ | $\mathrm{e4}$ |
| :--- | :--- |
| $4 \mathrm{a6}$ | $\mathrm{Kf2}$ |
| 5 a 7 | e 3 |
| $6 \mathrm{ar}=\mathrm{Q}$ | e 2 |
| $7 \mathrm{Qf8}$ | $\mathrm{el}=\mathrm{Q}$ |
| $8 \mathrm{Q} \times \mathrm{f6}+$ | Kg 3 |
| $9 \mathrm{Qg} 5+$ | Kh 3 |

9...Kf3 $10 \mathrm{Qd} 5+\mathrm{Kg} 311 \mathrm{Qd} 3+\mathrm{Kh} 4$ (Black's moves are forced in order to avoid the exchange of queens) $12 \mathrm{~d} 7 \mathrm{Qf} 2+13 \mathrm{~Kb} 3$ and wins.

$$
10 \text { Qd2! Qal }
$$

White can safely advance his pawn now, but $10 \ldots \mathrm{~b} 3+(10 \ldots$ Qe4 + $11 \mathrm{Qd} 3+$ ) $11 \mathrm{Kc} 3 \mathrm{Qal}+$ ( $11 \ldots \mathrm{Qe} 5+12 \mathrm{~K} \times \mathrm{b} 3$ is worse) $12 \mathrm{~K} \times \mathrm{b} 3$ Qb1 + 13 Ka4, advancing the king, also wins for White.
11 d7 $\mathrm{Qa4}+$
$11 \ldots \mathrm{Qa} 2+12 \mathrm{Kd1} \mathrm{Qb} 3+13 \mathrm{Ke} 2$ transposes to the game.

| $12 \mathrm{Kb1}$ | Qb3+ |
| :--- | :--- |
| $13 \mathrm{Kc1}$ | Qa3+ |
| $14 \mathrm{Kd1}$ | Qb3+ |

$14 \ldots \mathrm{Qal}+15 \mathrm{Ke} 2$ and $14 \ldots \mathrm{Qf} 3+15 \mathrm{Kc} 2 \mathrm{~b} 3+16 \mathrm{~Kb} 2$ bring the checks to a conclusion.

## $15 \mathrm{Ke} 2 \quad \mathrm{Kg} 4!$

An excellent final trick-White has no checks and $16 \mathrm{~d} 8=\mathrm{Q}$ ? Qf3 + $17 \mathrm{Ke} 1 \mathrm{Qh} 1+18 \mathrm{Kf2} \mathrm{Qh} 2+19 \mathrm{Ke} 3 \mathrm{Qf4}+20 \mathrm{Kd} 3 \mathrm{Of5}+$ is perpetual check.

## 16 Qd1!

A standard idea in queen endings. White forms a battery with his
king and queen so that any check from Black may be answered by a discovered check from the battery.


When one player has a positional advantage, the deciding factor may be whether or not he can penetrate with his king. If the position is blocked the defender may be able to set up a barricade to prevent this, but frequently the attacker can demolish the blockade with a welltimed pawn sacrifice. Here is an unusual example.


Karpov-Kasparov (9), match 1984.

| $1 \mathrm{~B} \times \mathrm{f5}$ | $\mathrm{~B} \times \mathrm{f5}$ |
| :--- | :--- | :--- |
| 2 Ne 3 |  |

Black suffers from a bad bishop and weak queenside pawns. White would like to fix Black's weaknesses with b4, liquidate all the pawns on the kingside and bring his king up, winning casily, but it is not so easy to execute this plan.

$$
2 \text {...Bd1 }
$$

Opinions have differed on this move. Timman considered it the decisive error, but I believe that is is no worse than any other move. Here are the alternatives:

1) $2 \ldots$ Be6. Now Timman gave $3 \mathrm{~h} \times \mathrm{g} 5 \mathrm{f} \times \mathrm{g} 54 \mathrm{f} 4 \mathrm{~g} \times \mathrm{f} 4$ ( $4 \ldots \mathrm{~g} 4$ is consistent with the idea of keeping the position blocked, but by 5 f 5 Bd 76 $\mathrm{Ng} 2 \mathrm{~B} \times \mathrm{f} 57 \mathrm{Nf} 4$ and $\mathrm{N} \times$ h5 5 White can easily bring his king to f 4$) 5 \mathrm{~g} \times \mathrm{f} 4$ Ke 76 f5 Bi7 $7 \mathrm{Kg} 3 \mathrm{Kt} 68 \mathrm{Kf4}$ and now White must manoeuvre with his knight: $8 \ldots \mathrm{Bg} 89 \mathrm{~b} 3$ (a waiting move) Bf 710 Nc 2 with a branch:
1a) $10 \ldots$ a5 11 b4 and according to Timman White's knight comes to 3 with decisive effect.

1b) $10 \ldots \mathrm{Bg} 811 \mathrm{Nb} 4 \mathrm{Bf} 7$ ( $11 \ldots \mathrm{~h} 4$ is met by 12 Nc 2 ) $12 \mathrm{~N} \times \mathrm{a} 6 \mathrm{~h} 413 \mathrm{Nc} 7$ h3 $14 \mathrm{Kg} 3 \mathrm{~K} \times \mathrm{f} 515 \mathrm{~N} \times \mathrm{b} 5$ ( $15 \mathrm{a} 4 \mathrm{~b} \times \mathrm{a} 416 \mathrm{~b} \times \mathrm{a} 4 \mathrm{Bh} 5$ is not so clear) with a winning position.
2) $2 \ldots \mathrm{Bg} 63 \mathrm{~h} \times \mathrm{g} 5 \mathrm{f} \times \mathrm{g} 54 \mathrm{f} 4 \mathrm{Be} 4$ (after $4 \ldots \mathrm{~g} \times \mathrm{f} 45 \mathrm{~g} \times \mathrm{f} 4$ we reach positions similar to those in line 1) $5 \mathrm{f} \times \mathrm{g} 5 \mathrm{Ke} 6$ (not $5 . . \mathrm{Ke} 76 \mathrm{~g} 4 \mathrm{~h} 47 \mathrm{Nf} 5+$ ) $6 \mathrm{Nf} 1 \mathrm{Kf} 57 \mathrm{Nd} 2 \mathrm{~K} \times \mathrm{g} 58 \mathrm{~N} \times \mathrm{e} 4+\mathrm{d} \times \mathrm{e} 49 \mathrm{Ke} 3 \mathrm{~K} 55$ with a drawn king and pawn ending.

However this analysis is not very convincing. Firstly. White can win in line 2 by 6 g 4 ! h 4 ( $6 \ldots \mathrm{~h} \times \mathrm{g} 47 \mathrm{Kg} 3$ followed by Kf 4 wins) 7 Ng 2 and Black is finished. Thus Black's best after 2...Bg6 is to play $4 \ldots \mathrm{~g} \times \mathrm{f} 4$ and transpose to line 1. The reason is that I don't see how White wins at the end of line la, for example $11 \ldots \mathrm{a} \times \mathrm{b} 412 \mathrm{a} \times b 4 \mathrm{Be} 813 \mathrm{Ne} 3 \mathrm{~B} 1714 \mathrm{Nd}$ Be8 (14...Bg8? $15 \mathrm{Nc} 3 \mathrm{~h} 416 \mathrm{~N} \times \mathrm{b} 5 \mathrm{~h} 317 \mathrm{Kg} 3 \mathrm{~K} \times \mathrm{f} 518 \mathrm{Nc} 7$ wins) 15 Ne3 Bct and White cannot lose a tempor to put Black in zugzwang, or $12 \mathrm{~N} \times \mathrm{b} 4 \mathrm{Bg} 8$ ( $12 \ldots \mathrm{~h} 413 \mathrm{Nc} 2 \mathrm{~h} 314 \mathrm{Ne} 3$ ) 13 Nc 2 Bt 714 Ne 3 Bg 815 Nd1 Bh7! and Black draws.

So how should White play after $2 \ldots$ Bef or 2...Bgt? The best idea is to abandon the plan of $\mathrm{h} \times \mathrm{g} 5$ and f 4 , and adopt a different plan based on g4, aiming for as many pawn exchanges as possible. Thus $2 \ldots$ Be6? 3 b 4 Bd 74 g 4 ! $\mathrm{h} \times \mathrm{g} 45 \mathrm{~h} 5$ (not $5 \mathrm{~h} \times \mathrm{g} 5 \mathrm{f} \times \mathrm{g} 56 \mathrm{~N} \times \mathrm{g} 4 \mathrm{~B} \times \mathrm{g} 4$ draw) Be8 $6 \mathrm{~h} 6 \mathrm{Bg} 67 \mathrm{~N} \times \mathrm{g} 4 \mathrm{Ke} 68 \mathrm{Kg} 3$ followed by f 4 wins. It follows that $2 \ldots \mathrm{Bg} 6$ is a better defence, so as to meet 3 b4 by $3 \ldots$...Ke6, when $4 \mathrm{~g} 4 \mathrm{~h} \times \mathrm{g} 45$ $\mathrm{h} \times \mathrm{g} 5 \mathrm{~g} \times \mathrm{f} 3$ is unclear. White might try 3 g 4 , but even here the win is uncertain.

## 3 b4 $\quad \mathbf{g} \times \mathrm{h} 4$ ?

It seems that Black is close to success, since after $4 \mathrm{~g} \times \mathrm{h} 4$ Black can keep his bishop on the bl-h7 diagonal and White's king cannot get further than f4. It appears likely that Black had missed the stunning reply. $3 \ldots$ Ke6! was the best defence, when $4 \mathrm{~g} 4 \mathrm{~h} \times \mathrm{g} 45 \mathrm{~h} \times \mathrm{g} 5 \mathrm{~g} \times \mathrm{f} 3$ (not $5 \ldots \mathrm{f} \times \mathrm{g} 56 \mathrm{~N} \times \mathrm{g} 4 \mathrm{Bf} 57 \mathrm{Kg} 3 \mathrm{Kd} 68 \mathrm{f} 4 \mathrm{~g} \times \mathrm{f} 49 \mathrm{~K} \times \mathrm{f} 4 \mathrm{Bb} 110 \mathrm{Kg} 5 \mathrm{Ke} 611$ Ne5 and White either reaches f 6 with his king or takes the a-pawn by Nc6-b8, with a win in either case) $6 \mathrm{~K} \times \mathrm{f} 3(6 \mathrm{~g} \times \mathrm{f6} 6 \mathrm{Be} 4) \mathrm{f} \times \mathrm{g} 56 \mathrm{Kg} 4 \mathrm{Kf} 6$ $7 \mathrm{~N} \times \mathrm{d} 5+\mathrm{Kg} 6$ offers every chance of a draw.

## 4 Ng 2 !

A remarkable move, easy to miss even in adjornment analysis. One is used to active pawn sacrifices to penetrate with the king, but a passive sacrifice is very unusual. White keeps ht for his king by the simple expedient of not recapturing on that square!

$$
4 \quad \ldots . \mathrm{h} \times \mathrm{g} 3+
$$

After 4...h3 5 Nf4 White takes on h5, then comes back for the other pawn by Nft and Kg1-h2.

Black decides to jettison his h-pawn immediately since $5 .$. Bgg 6 Nf4 Bf 77 Kh 4 would have won it in any case.

| 6 | $\mathbf{N f 4 +}$ | Kf5 |
| :--- | :--- | :--- |
| 7 | $\mathrm{~N} \times \mathrm{h5}$ | Ke6 |

The threat was 8 Nf 4 Ba 29 Nd 3 and 10 Nc 5 winning the a-pawn, so Black's king has to retreat.

| $8 \mathrm{Nf4}+$ | Kd6 |  |
| :---: | :--- | :--- |
| 9 Kg 4 | Bc 2 |  |
| 10 | Kh 5 | $\mathrm{Bd1}$ |

Black attempts to activate his pieces by offering a pawn; passive defence would be met by Kho-g7.

$$
11 \mathrm{Kg} 6 \quad \mathrm{Ke}^{7}
$$

Or $11 \ldots \mathrm{~B} \times \mathrm{f} 312 \mathrm{~K} \times \mathrm{f} 6$ followed by $\mathrm{Ng} 6-\mathrm{e} 7-\mathrm{f} 5+$, Ke5 and a knight transfer to c5.

$$
12 \mathrm{~N} \times \mathrm{d} 5+\quad \text { Ke6 }
$$

and White won after $\mathbf{1 3} \mathbf{N c} 7+$ Kd7 (or 13...Kd6 $14 \mathrm{Ne} 8+\mathrm{Kd} 51544$ with a tremendous passed f-pawn to come) $\mathbf{1 4} \mathbf{N} \times \mathbf{a 6} \mathrm{B} \times \mathbf{6 3} \mathbf{1 5} \mathrm{K} \times \mathrm{f} 6$ Kd6 16 Kf5 Kd5 17 Kf4 Bhl 18 Ke3 Kc4 19 Nc5 Bc6 20 Nd3 Bg2 21 Ne5+ Kc3 $(21 \ldots \mathrm{~Kb} 3$ loses to $22 \mathrm{Kd} 3 \mathrm{Bf1}+23 \mathrm{Kd} 2 \mathrm{Bg} 224 \mathrm{Ng} 4$ followed by Ne 3 and d5, since if Black ever takes on a3 White plays Kc3 and wins the bishop for the d-pawn) $22 \mathrm{Ng} 6 \mathrm{Kc} 423 \mathrm{Ne} 7 \mathrm{Bb} 724 \mathrm{Nf} 5 \mathrm{Bg} 225 \mathrm{Nd6}+$ Kb3 26 N $\times$ b5 Ka4 27 Nd6 1-0.


Stean-Sosonko, Hastings 1975/6
White is two pawns up but the terrible position of his rook, which is completely immobilised, renders the win highly problematical. If the White king ventures on to the sixth rank (threatening to move the rook) Black checks on the eighth rank, and as soon as the king returns to the fifth rank Black plays the rook back to b1. On the
other hand Black's movements are restricted, since his king has to remain on either h7 or g7 or White will promote his pawn. White's only winning attempt is to create a passed pawn on the kingside. Which file should it be on? A passed $g$ - or h-pawn is quite useless since when it advances to the sixth rank Black just puts his king in front of it and laughs at White. But the advance of a passed f-pawn really does win for White, since if Black replies to f6+ with ...Kf7 White wins by Rh8, while other moves just allow the f-pawn to promote. With the given pawn structure it is not so easy to make a passed f-pawn. The only way is to play f 4 , then g 4 (intending $\mathrm{g} \times \mathrm{h} 5$ ) and after $\ldots \mathrm{h} \times \mathrm{g} 4$ reply with h 5 . The obvious problem with this plan is that Black obtains two passed pawns himself, so play becomes very tactical. White would like to have his king on the kingside when he plays this breakthrough, to stop Black's pawns, but by checking Black can force the king over to the c-file.

| $1 \mathbf{~ f 4}$ | Re1+ |
| :--- | :--- |
| $2 \mathbf{K d 5}$ | Rb1 |
| $\mathbf{3}$ Kd4 | Rb2 |
| 4 Kd3 | Rb3+ |
| $\mathbf{5} \mathbf{K c 2}$ |  |

There is no point in hiding the king on h3 since the reply ...Rb3 prevents g 4 . White's king has now driven the Black rook away and can come across to block the passed g-pawn Black obtains after g4.

| 5 | $\ldots \mathbf{R b 6}$ |
| :--- | :--- |
| $\mathbf{6 g 4}$ | $\quad \mathbf{h} \times \mathrm{g} 4$ |

White must not play h5 until his king is blocking the advance of Black's kingside pawns.

| 7 | ...g3 |
| :---: | :---: |
| 8 Ke 2 | Rb2+ |
| 9 Kfl | Kh7 |

It is interesting to compare this position with the Zepler study in Chapter 7. Moving the rook up the $b$-file allows White to improve the position of his king by Kg 2 , while $9 \ldots \mathrm{~g} 2+$ loses to 10 Kgl Kh 7 $11 \mathrm{Kh} 2!\mathrm{Kg} 712 \mathrm{~h} 5 \mathrm{~g} \times \mathrm{h} 513 \mathrm{f} 5 \mathrm{~h} 4 \mathrm{l} 4 \mathrm{f} 6+\mathrm{Kf} 715 \mathrm{Rh} 8$.

| 10 Kg 1 | Kg 7 |
| :--- | :--- |
| $11 \mathrm{h5}$ | $\mathrm{~g} \times \mathrm{h5}$ |
| $12 \mathrm{f5}$ | $\mathrm{h4}$ |
| $13 \mathrm{f} 6+$ | $\mathrm{Kf7}$ |

Not 13..Kh7? $14 \mathrm{f} 7 \mathrm{Rb} 1+(14 \ldots \mathrm{~h} 315 \mathrm{Rh} 8+!\mathrm{Kg} 616 \mathrm{~b} 8=\mathrm{O}$ covers b1 and wins) $15 \mathrm{Kg} 2 \mathrm{Rb} 2+16 \mathrm{Kh} 3$ (White cannot go to the $f$-file owing to ...Rf2 $+-\times \mathrm{f} 7$ ) Rh2 $+17 \mathrm{Kg} 4 \mathrm{~g} 218 \mathrm{Kh} 5!\mathrm{gl}=\mathrm{Q} 19 \mathrm{Rh} 8+$ ! $\mathrm{K} \times \mathrm{h} 820 \mathrm{f} 8=\mathrm{Q}+\mathrm{Kh} 721 \mathrm{Qf} 7+\mathrm{Qg} 722 \mathrm{Qf} 5+$ and White mates.

| $14 \mathbf{R h} 8$ | $\mathbf{R b 1}+$ |
| :--- | :--- |
| 15 Kg 2 | $\mathbf{R b 2 +}$ |
| $16 \mathbf{K h 3}$ |  |

White must avoid 16 Kf 3 ? g2 or $16 \mathrm{Kf1} \mathrm{Rb} 1+17 \mathrm{Ke} 2$ ? g 2 .
16
...Rh2+
After 16...g2? 17 Kh 2 White wins at once.
17 Kg 4
g2
An interesting moment. Black would even win after $18 \mathrm{~b} 8=\mathrm{Q}$ $\mathrm{gl}=\mathrm{Q}+19 \mathrm{Kh} 5 \mathrm{Qd1}+$, but $18 \mathrm{Rf} 8+$ is an interesting line. After 18 Rf8 + Kg6 (18...Ke6? 19 b8 $=\mathrm{Q} \mathrm{gl}=\mathrm{Q}+20 \mathrm{Kh} 5 \mathrm{Qc} 5+21 \mathrm{Kh} 6$ Qe3 + $22 \mathrm{Kh} 7 \mathrm{Qe} 4+23 \mathrm{Kh} 8$ and White must win) $19 \mathrm{Rg} 8+\mathrm{K} \times \mathrm{f} 6$ (19.. $\mathrm{Kh} 6 / \mathrm{h} 720 \mathrm{Kf5} \mathrm{gl}=\mathrm{Q} 21 \mathrm{R} \times \mathrm{gl} \mathrm{Rb} 222 \mathrm{f} 7$ and $19 \ldots \mathrm{Kf} 720 \mathrm{~b} 8=\mathrm{Q}^{\prime}$ $\mathrm{g} 1=\mathrm{Q}+21 \mathrm{Kh} 5 \mathrm{Q} \times \mathrm{g} 822 \mathrm{Qb} 3+\mathrm{Kf8} 23 \mathrm{Qb} 4+$ and 24 Qe 7 mate are White wins, while $21 \ldots \mathrm{Qdl} / \mathrm{c} 5+$ in the latter line is similar to 18. Ke6? above) $20 \mathrm{~b} 8=\mathrm{Q} \mathrm{g} 1=\mathrm{Q}+21 \mathrm{Kh} 5 \mathrm{Qc} 5+22 \mathrm{Kh} 6 \mathrm{Qe} 3+23 \mathrm{Kh} 7$ Qe4 +24 Kh 8 Black has no checks, but $24 \ldots \mathrm{Qd} 425 \mathrm{Rd} 8 \mathrm{Qb} 2$ is even slightly better for Black.

## 18 Kf5

Black just manages to avoid defeat after this move also.

| 18 | $\cdots \mathrm{gl}=\mathrm{Q}$ |
| :--- | :--- |
| $19 \mathrm{Rh} 7+$ | Kg 8 |
| $20 \mathrm{Rg} 7+$ | $\mathrm{Q} \times \mathrm{g} 7$ |
| $21 \mathrm{b8}=\mathrm{Q}+$ | $\mathrm{Qf8}$ |
| $22 \mathrm{Q} \times \mathrm{h} 2$ | $\mathrm{Qc8}+$ |

Black avoids the trap $22 \ldots$ Qc5 +23 Kg 6 when he has no checks and must lose.

$$
\frac{1}{2}-\frac{1}{2}
$$

It is perpetual check after $23 \mathrm{Kg} 5 \mathrm{Qc} 1+$. Michael Stean showed me the above line during the adjournment, which came just before the diagram, but Sosonko only realised that $13 \ldots \mathrm{Kh} 7$ ? lost when they were back over the board!


This may not look particularly tactical but just wait ard see what happens! It is noteworthy that the same position could have arisen in the game Holmov-Tsheshkovsky, USSR Ch. Semi-Final 1973 and in Shakhmatny Bulletin considerable analysis was devoted to proving a win in the diagram. Although Holmov's analysis clears up some lines, Radev deserves the credit for being the first to find the basic idea.

$$
1 \mathrm{Kc4} \quad \mathrm{Kf8}
$$

White first improves the position of his king while Black, of course, can only sit and wait.

| $\mathbf{2}$ Kd5 | Kg 8 |
| :--- | :--- |
| $\mathbf{3}$ Ke6 | Bc 3 |

At first sight it seems impossible for White to make progress. Black has plenty of squares on the long diagonal for his bishop, so there is no danger of his ending up in zugzwang, while of White checks Black can move his king between g 7 and g 8 .

## 4 Rd3!

A mysterious rook move!

$$
\begin{array}{ll}
4 & \ldots \mathrm{Bb} 2 \\
5 \mathrm{~g} 4: & \mathrm{h} \times \mathrm{g} 4
\end{array}
$$

The most resilient defence is $5 \ldots \mathrm{f} \times \mathrm{g} 46 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 57 \mathrm{~K} \times \mathrm{ff} 5 \mathrm{Kf7}$ (White intended 8 Kg 6 ) $8 \mathrm{Rd} 7+$ and now:
(A) $8 . . . \mathrm{Ke} 89 \mathrm{Rh} 7 \mathrm{~g} 310 \mathrm{R} \times \mathrm{h} 5 \mathrm{Bcl}$ (setting the excellent trap 11 Rh7? Bg5! and Black draws) $11 \mathrm{Kff} \mathrm{Kd7}$ (11...g2 $12 \mathrm{Rh} 8+$ and 13 Rgk wins easily, as does $11 \ldots$ Bb2 +12 Ke 6 ) $12 \mathrm{Rd} 5+\mathrm{Ke} 8$ (12... Kc6 13 Rd 8 and 14 Rg 8 ) $13 \mathrm{Re} 5+\mathrm{Kd} 7$ ( $13 \ldots \mathrm{Kf} 814 \mathrm{Rc} 5 \mathrm{Bb} 2+15 \mathrm{Kg} 6$ wins) 14 Re 4 and 15 Rg 4 winning.
(B) $8 \ldots \mathrm{Kf8} 9 \mathrm{Rh} 7$ (White must avoid the trap $9 \mathrm{Kg6g} 310 \mathrm{Rd} 5 \mathrm{Bc} 111$ Rd3 Bf4 12 Rf3 $2213 \mathrm{R} \times \mathrm{f} 4+\mathrm{Kg8}$, when White must take the diaw by $14 \mathrm{~K} \times \mathrm{h} 5$ : note that 12 Rd 1 is no better, because of 12 . .Be3) g 311 $\mathrm{R} \times \mathrm{h} 5 \mathrm{Bcl}(11 \ldots \mathrm{~K} 7712 \mathrm{Rg} 5 \mathrm{Bf6} 13 \mathrm{Rg} 4$ followed by h5) $12 \mathrm{Kf6}$ and now:
(B1) $11 \ldots \mathrm{Bb} 2+12 \mathrm{Kg} 6 \mathrm{Bc} 113 \mathrm{Rh} 8+\mathrm{Ke} 714 \mathrm{Rg} 8$ (intending Kf5) Ke6 15 Re8 + Kd5 16 Re 2 Kd 417 h 5 Kd 3 (17... Be3 18 h 6 Bf 219 h 7 promotes with check) $18 \mathrm{Rg} 2 \mathrm{Bt} 419 \mathrm{ht} \mathrm{Ke} 320 \mathrm{~h} 7 \mathrm{Be} 521 \mathrm{R} \times \mathrm{g} 3+$ wins. (B2) $11 \ldots \mathrm{Kg} 812 \mathrm{Rc} 5 \mathrm{Be} 3$ (12.. $\mathrm{Bb} 2+13 \mathrm{Kg} 6$ ) 13 Rc 7 ! $\mathrm{Bd} 4+14 \mathrm{Kg} 6$ Kf8 15 Rc 2 Bf 2 ( $15 . . \mathrm{Ke} 716 \mathrm{Re} 2+\mathrm{Kd6} 17 \mathrm{Rg} 2 \mathrm{Bf} 218 \mathrm{~h} 5$ wins) 16 Re2!, forcing the bishop to move after which h5 wins.

$$
6 \mathrm{~h} 5 \quad \mathrm{Kg} 7
$$

Or $6 \ldots \mathrm{~g} \times \mathrm{h} 57 \mathrm{~K} \times \mathrm{f} 5 \mathrm{Kg} 7$ (7...Bc18 $\mathrm{Kg} 6 \mathrm{Kf8} 9 \mathrm{f} 5$ wins easily) $8 \mathrm{Rd} 7+$ Kh6 (8...Kg89 Kg6 or 8...Kf89 Rh7) $9 \mathrm{Rd} 6+\mathrm{Kh} 7$ ( $9 \ldots \mathrm{Kg} 710 \mathrm{Rg6}+$ $\mathrm{Kh} 711 \mathrm{Kg} 5 \mathrm{Bcl} 12 \mathrm{Rh} 6+\mathrm{Kg} 713 \mathrm{R} \times \mathrm{h} 5 \mathrm{~g} 314 \mathrm{Rh} 3$ wins the pawn) 10 $\mathrm{Kg} 5 \mathrm{Bcl} 11 \mathrm{Rd} 7+\mathrm{Kg} 812 \mathrm{Kg} 6 \mathrm{Kf8} 13 \mathrm{f} 5 \mathrm{~g} 314 \mathrm{f} 6$ and White promotes.

| $7 \mathrm{~h} \times \mathrm{g} 6$ | $\mathrm{~K} \times \mathrm{g} 6$ |
| :--- | :--- |
| $8 \mathrm{Rd5}$ | Bcl |

If $8 \ldots \mathrm{Kh} 59 \mathrm{~K} \times \mathrm{f} 5 \mathrm{Kh} 4$ ( $9 \ldots \mathrm{~g} 310 \mathrm{Rd} 1$ wins the g-pawn) 10 Rd 6 ! Bc ] (or 10 ... Kh3 11 Rh6 + and 12 Rg6) 11 Rg6 wins.

$$
9 \mathrm{R} \times \mathrm{f} 5 \quad \mathrm{~B} \times \mathrm{f} 4
$$

Desperation, as $9 \ldots \mathrm{Kh} 610 \mathrm{Ke} 5$ followed by Rg 5 is quite hopeless.

| 10 | R $\times \mathrm{f} 4$ |  | Kg5 |
| :--- | :--- | :--- | :--- |
| 11 | Ke5 |  | g3 |
| 12 | Ke4 |  | g2 |
| 13 | Rf8 |  | Kh4 |
| 14 | Rg8 |  |  |
|  |  | $1-0$ |  |

Winning by one tempo!

## 6 Zugzwang

Zugzwang is a familiar motif in king and pawn endings, but it is seen less frequently in proportion to the number of pieces on the board. Zugzwang positions with a middle-game character are extremely rare. Games such as Samisch-Nimzowitsch, Copenhagen 1923 or Alckhine-Nimzowitsch, San Remo 1930 show positions in which, although zugzwang hastens the loser's demise, the winning side is so strongly placed that he could win quite easily even without zugzwang.

In the following position there is no doubt that zugzwang is essential to White's victory.


Zhilin-Tchernov, Semi-final USSR Ch. 1960
Black is a pawn up but his king is somewhat exposed. Nevertheless it is surprising that White won from the diagram in just six moves.

$$
1 \mathrm{f} 6!? \quad \mathrm{~B} \times \mathrm{h} 3
$$

The best defence. After $1 \ldots \mathrm{Od} 6+2 \mathrm{Qe} 5 \mathrm{Q} \times \mathrm{e} 5+3 \mathrm{~d} \times \mathrm{e} 5$ White has good winning chances, for example:

1) $3 \ldots \mathrm{~B} \times \mathrm{h} 34 \mathrm{~K} \times \mathrm{h} 3 \mathrm{~b} 55 \mathrm{Kg} 4 \mathrm{~g} \times \mathrm{ff} 66 \mathrm{e} 6!\mathrm{d} 47 \mathrm{Kf} 5 \mathrm{~d} \times \mathrm{c} 38 \mathrm{~K} \times \mathrm{f} 6 \mathrm{c} 29$ $\mathrm{g} 7+\mathrm{Kg} 810 \mathrm{e} 7$, or $5 \ldots \mathrm{~d} 46 \mathrm{Kf5} \mathrm{~d} \times \mathrm{c} 37 \mathrm{e} 6 \mathrm{c} 28 \mathrm{e} 7+\mathrm{Ke} 89 \mathrm{Ke} 6$ and White wins in both cases.
2) $3 \ldots \mathrm{~g} \times \mathrm{f6} 4 \mathrm{~B} \times \mathrm{d} 7 \mathrm{f} \times \mathrm{e} 55 \mathrm{Bc} 8(5 \mathrm{Kg} 4$ ? e 4$)$ and now:

2a) $5 \ldots \mathrm{~d} 4$ b c 4 b5 ( $6 \ldots \mathrm{~d} 37 \mathrm{Kf} 3 \mathrm{~b} 58 \mathrm{c} 5$ !) $7 \mathrm{c} \times \mathrm{b} 5 \mathrm{c} \times \mathrm{b} 58 \mathrm{Bf} 5$ followed by playing the king to h 5 when White wins because his bishop stops all three queenside pawns.
2b) 5 ...Kg76 B $\times$ b7 K $\times \mathrm{g} 67 \mathrm{~B} \times \mathrm{c} 6 \mathrm{~d} 48 \mathrm{c} 4 \mathrm{Kf6} 9 \mathrm{Kf} 3 \mathrm{~h} 5(9 \ldots \mathrm{Ke} 610 \mathrm{c} 5$ h5 1! Ke4h4 $12 \mathrm{Bb} 7 \mathrm{Kd} 713 \mathrm{~K} \times \mathrm{e} 5 \mathrm{~d} 314 \mathrm{Kd} 4 \mathrm{~d} 215 \mathrm{Bf} 3$ and White wins
by one tempo) $10 \mathrm{c} 5 \mathrm{~h} 411 \mathrm{Bd} 7 \mathrm{~d} 311 \mathrm{Ke} 3 \mathrm{e} 412 \mathrm{Bc} 6 \mathrm{Ke} 513 \mathrm{~B} \times \mathrm{e} 4 \mathrm{~d} 2$ $14 \mathrm{~K} \times \mathrm{d} 2 \mathrm{~K} \times \mathrm{e} 415 \mathrm{c} 6$ with a skewer after both sides promote.
2c) $5 \ldots \mathrm{~b} 56 \mathrm{Bb} 7 \mathrm{Kg} 7(6 \ldots \mathrm{~d} 47 \mathrm{c} \times \mathrm{d} 4 \mathrm{e} \times \mathrm{d} 48 \mathrm{~B} \times \mathrm{c} 6$ threatens Be 4 , so $8 \ldots \mathrm{~d} 3$ is forced. but then 9 Kg 4 ! wins as the bishop can stop both queenside pawns) $7 \mathrm{~B} \times \mathrm{c} 6 \mathrm{~d} 48 \mathrm{c} \times \mathrm{d} 4 \mathrm{~K} \times \mathrm{g} 69 \mathrm{Be} 4+\mathrm{Kf} 610 \mathrm{~d} 5$ and White wins by moving the king to the queenside. since the bishop can defend d 5 while covering e 4 and hl .
3) $3 \ldots \mathrm{Be} 84 \mathrm{Bf} 5$ ! ( $4 \mathrm{f} 7 \mathrm{~B} \times \mathrm{f} 75 \mathrm{~g} \times \mathrm{f} 7 \mathrm{~K} \times \mathrm{f} 7$ should be a draw) and White has winning chances with the plan $\mathrm{Kf4}, \mathrm{Bc} 2$ and $\mathrm{Kf5}-\mathrm{e} 6$, finally preparing f 7 .
This analysis is far from complete, but as Black's actual move should have led to a clear-cut draw we can conclude that $1 \ldots$ Qd6 + would have been a weaker choice.

## 2 Qe5:

Even though this should not win, such an unexpected move must have put Black off his stride. The threats are $3 \mathrm{Qb} 8+$ and $3 \mathrm{f} \times \mathrm{g} 7+\mathrm{Kg} 84$ $\mathrm{Oe} 8+\mathrm{K} \times \mathrm{g} 75 \mathrm{Qf} 7+$.

## 2

...Bd7?
The losing move. Black could have saved the game by $2 \ldots \mathrm{Q} \times \mathrm{c} 3+3$ $\mathrm{Kh} 4 \mathrm{~g} \times \mathrm{f} 64 \mathrm{Q} \times \mathrm{f} 6+\mathrm{Ke} 85 \mathrm{Qf} 7+(5 \mathrm{~g} 7 \mathrm{Qe} 1+6 \mathrm{~K} \times \mathrm{h} 3 \mathrm{Qh} 1+7 \mathrm{Kg} 4$ $\mathrm{Qg} 2+$ and even though White can take the h -pawn with his king Black can give perpetual check on e4, g2 and hl; note that White can never interpose on 55 as Black just swaps queens) Kd 86 g 7 and now:

1) $6 \ldots \mathrm{Q} \times \mathrm{d} 4+? 7 \mathrm{~K} \times \mathrm{h} 3 \mathrm{Qe} 3+8 \mathrm{Kg} 2$ ! $(8 \mathrm{Kg} 4$ ? $\mathrm{Qg} 1+$ leads to a draw as in line 2) $\mathrm{Qe} 2+(8 \ldots \mathrm{Qg} 5+9 \mathrm{Kf} 3,8 \ldots \mathrm{Qd} 2+9 \mathrm{Qf} 2 \mathrm{Qg} 5+10 \mathrm{Og} 3$ $\mathrm{Qd} 2+11 \mathrm{Kh} 3$ and $8 \ldots \mathrm{Qe} 4+9 \mathrm{Qf} 3 \mathrm{Qg} 6+10 \mathrm{Qg} 3 \mathrm{Qe} 4+11 \mathrm{Kh} 3 \mathrm{Qh} 1+$ 12 Kg 4 Qe4+ 13 Kh 5 Qf5 $+14 \mathrm{~K} \times \mathrm{h} 6 \mathrm{Qf} 6+15 \mathrm{Kh} 5$ Qf7 +16 Kh 4 all win for White) $9 \mathrm{Of} 2 \mathrm{Qe} 4+(9 \ldots \mathrm{Qg} 4+10 \mathrm{Qg} 3 \mathrm{Qe} 2+11 \mathrm{Kh} 3$ leads to the same thing) $10 \mathrm{Kh} 2 \mathrm{Qe} 5+11 \mathrm{Qg} 3 \mathrm{Qe} 2+12 \mathrm{Kh} 3 \mathrm{Qf} 1+13 \mathrm{Kh} 4$ Qf6 +14 Kh 5 winning as after $8 \ldots \mathrm{Qe} 4+$.
2) $6 \ldots \mathrm{Qe} 1+$ ! (Black must check from the rear) $7 \mathrm{~K} \times \mathrm{h} 3 \mathrm{Ohl}+8 \mathrm{Kg} 4$ $\mathrm{Qg} 2+9 \mathrm{Kf5} \mathrm{Qg} 5+10 \mathrm{Ke} 6 \mathrm{Qe} 3+$ with perpetual check.

## 3 Kh4!

Zugzwang! Black's only moves are with his b- and h-pawns, e.g. $3 \ldots \mathrm{Be} 8 / \mathrm{c} 84 \mathrm{f} \times \mathrm{g} 7+$ and $5 \mathrm{Qe} 8+$ or $3 \ldots \mathrm{Kg} 84 \mathrm{Qb} 8+\mathrm{Qf} 85 \mathrm{f} 7+$ or $3 \ldots \mathrm{~g} \times \mathrm{f} 64 \mathrm{Q} \times \mathrm{f} 6+\mathrm{Ke} 85 \mathrm{~g} 7$. The White king is safe from checks on both h4 and h5, so White only needs to oscillate between these two squares until Black is forced to play ...b4 allowing Qe7+.


Zugzwang also occurs fairly often in minor piece endings. We continue with some examples of this.


Stein-Dorfman, USSR 1970
This position was given in Informator and the notes indicated that both sides played accurately, but in fact Black missed a clear win. The winning manoeuvre has been known for a long time, since it is contained in a position published by Horwitz in 1885.

## 1 Bf6 <br> Nd3

The threat is $2 \ldots \mathrm{Nb} 2$ and the reply is forced.

| 2 Ba1 | $\mathbf{N b} 2$ |
| :--- | :--- | :--- |
| 3 Ke1 |  |

If $3 \mathrm{Ke} 3 \mathrm{Na} 44 \mathrm{Kd} 4 / \mathrm{e} 4$ ( 4 Ke 2 transposes to the note to Black's third move) Kbl 5 Kd 3 (the only move, hoping for $5 \ldots \mathrm{~K} \times \mathrm{al}$ ? 6 Kc 2 , when White draws as the knight cannot lose a move) Nc5 $+6 \mathrm{Kd} 2(6 \mathrm{Kc} 3$ $\mathrm{K} \times \mathrm{a} 17 \mathrm{Kc} 2 \mathrm{Nb} 3$ wins) $\mathrm{Nb} 3+$, capturing the bishop with the knight.

$$
3 \text {...Kbl? }
$$

Throwing away half a point. The winning line was $3 \ldots \mathrm{Na}$ ! 4 Ke 2 $\mathrm{Kcl} 5 \mathrm{Kel}(5 \mathrm{Kd} 3 \mathrm{Kbl} 6 \mathrm{Kd} 2 \mathrm{Nb} 2$ reaches the same zugzwang position as the main line, while $5 \mathrm{Ke} 3 \mathrm{Kbl} 6 \mathrm{Kd} 3 \mathrm{Nc} 5+$ transposes to the note to White's third move) Nc5! 6 Ke 2 (if 6 B moves Nd3 + followed by 7...Nb2 wins) Kbl 7 Kdl ( 7 B moves Na 4 and $8 \ldots \mathrm{Nb} 2$ or 7 Kd 2 $\mathrm{Nb} 3+$ ) Nd 38 Kd 2 Nb 2 and White is in zugzwang ( $9 \mathrm{Kc} 3 \mathrm{~K} \times \mathrm{al} 10$ Kc 2 Nd 3 ). The idea of playing the knight from b2 to a4 to c 5 to d 3 and back to $b 2$ is not obvious, but is rather attractive.

## 4 Kd2

Reaching the same position, but with the wrong person to move! Black can make no progress here and may as well take the bishop at once.


In the next game poor Black suffers repeatedly from zugzwang. but even so he should still have drawn.


Lukov-Duriga, Poland 1975
Black cannot move his knight or his king, the latter because of the reply Kd6. So he is reduced to pushing his h-pawn. White must round this up before doing anything else.

| I |  | $\ldots h 5$ |
| :--- | :--- | ---: |
| 2 | Ba4 | h4 |
| 3 | Bd7 | h3 |
| 4 | B $\times$ h3 |  |

Now Black has a moment of freedom in which to improve his position. He decides to bring the knight over to the other side of the pawn, which should draw with accurate play. However $4 \ldots$ Kh 6 ! is simpler, for example 5 Kd 6 ( $5 \mathrm{Bd} 7 \mathrm{Kg} 76 \mathrm{Kd} 6 \mathrm{Kf7}$ followed by ... $\mathrm{Ne} 8+$ and ...Nf6 + draws) Ne $8+6 \mathrm{Ke} 6 \mathrm{Kg} 77 \mathrm{Bf} 1$ (once the knight is established at f6 White cannot make progress) Nf68 Bb5 g59 Ba4 g410 Bb5 g311 Bc6 Kg6 and $12 \ldots \mathrm{Kg} 7$, when White cannot achieve anything.

| $\mathbf{5}$ Be6! | ..Ne8 <br> Kh6 |
| :--- | :--- |

Not 5...Nf6? (5...Nc7? 6 Bd7 loses at once, but $5 \ldots \mathrm{Ng} 7$ will transpose to the game) $6 \mathrm{Bf} 7 \mathrm{Ng} 4+(6 \ldots \mathrm{Nd} 7+$ is the same $) 7 \mathrm{Kd} 6$ ! Nf 68 Ke 6 Nh 5 $9 \mathrm{~B} \times \mathrm{g} 6!$ and now $9 \ldots \mathrm{Nf} 610 \mathrm{Bf} 7$ or $9 \ldots \mathrm{Ng} 7+10 \mathrm{Kf} 7 \mathrm{Kh} 611 \mathrm{Bb} 1$ with zugzwang.

| $7 \mathrm{Kf6}$ | g5 |
| :--- | :--- |
| $8 \mathrm{Kf7}$ | Kh7 |
| $9 \mathrm{Kf8}$ | Kg6 |

9..Kh6 $10 \mathrm{Bf5}$ is an immediate disaster.

## $10 \mathrm{Bg} 4 \quad$ Kf6?

The losing move. Black could still have drawn by $10 \ldots$ Kh7! (10...Kh6? 11 Bf5). After $11 \mathrm{Bf5}+\mathrm{Kh} 6$ White has no waiting move since $12 \mathrm{Kf7}$ ? can be met by $12 \ldots$ Nxf5!. He can try playing his bishop to other squares, but if Black defends accurately he can never be forced into zugzwang, for example $11 \mathrm{Bh} 3 \mathrm{Kg} 612 \mathrm{Bd} 7 \mathrm{Kh} 7!13 \mathrm{Kf} 7 \mathrm{Kh} 614 \mathrm{Kg} 8 \mathrm{~g} 4$ ! (not 14_..Kg6? 15 Bf5 + Kf6/h6 $16 \mathrm{Kf8}$ ) $15 \mathrm{~B} \times \mathrm{g} 4 \mathrm{Ne} 816 \mathrm{Kf7} \mathrm{Nc} 7$ followed by ... Kg 5 drawing.

## 11 Bf5:

This zugzwang forces Black to jettison his last pawn without being able to switch his knight to c7.

| 11 |  | ..g4 |
| :--- | :--- | :--- |
| 12 | B $\times \mathrm{g} 4$ | Kg6 |
| 13 | Bd7 | Kh7 |

After 13...Kf6 or 13...Kh6 the bishop returns to f5.
14 Kf7 Kh6
$14 \ldots \mathrm{Kh} 815 \mathrm{Bg} 4$ is the same since White would promote with check after 15...Nf5.

| 15 | Bg 4 |  | Kh 7 |
| :--- | :--- | :--- | :--- |
| 16 | Be 2 |  |  |
|  |  | $1-0$ |  |

as 16...Kh6 (16...Nf5 17 Bd 3$) 17 \mathrm{Bd} 3$ is the final zugzwang.
Although the solution to the following study is really only two moves long, there are many little finesses.

If White makes a random knight move Black replies ...Nf6 and the game is a draw. So White must move his king. If 1 Kc 3 ? then $1 \ldots \mathrm{Kc} 5$ puts White in zugzwang, as the variations $2 \mathrm{Nd} 6 \mathrm{Nf} 63 \mathrm{Ne} 4+\mathrm{N} \times \mathrm{e} 4$ check and 2 Kd 3 ( 2 K elsewhere allows $2 \ldots \mathrm{Kd} 4$ followed by 3...Ke5 and $4 \ldots \mathrm{Ke} 6$ ) Ne5 + and 3...Ng6 prove. Curiously enough the position after 1 Kc 3 Kc 5 is one of mutual zugzwang, i.e. not only does White to play draw but Black to play loses, for example 2...Nb6 3 Nc7 or 2...Kc6 3 Kc 2 ! (3...Kb6 4 Nc 7 or $3 \ldots$...Kc5 $4 \mathrm{Nd} 6 \mathrm{Nf} 6.5 \mathrm{Ne} 4+$ ) or $2 \ldots \mathrm{~Kb} 63 \mathrm{~Kb} 2$, when $3 \ldots \mathrm{Ka} 7$ and $3 \ldots \mathrm{Ka} 5$ both transpose to variations to be considered further on. It can be seen that the position of the White king on b4 is not very good since it is too exposed to Black knight checks. White would prefer to have his king as far away as possible. But White must be careful which move he plays in the

original position as 1 Kb 3 ? only draws: $1 \ldots \mathrm{Nc} 5+2 \mathrm{Kc} 4 \mathrm{Ne} 63 \mathrm{Nfo}$ (3 Kd5 Nf4+ and 4...Ng6) Ng7 4 Kd5 Kc7 5 Ke5 Ne8! (clearest) 6 Ke6 ( $6 \mathrm{~N} \times \mathrm{e} 8+\mathrm{Kd} 77 \mathrm{Kf} 6 \mathrm{~K} \times \mathrm{e} 8$ ) $\mathrm{Ng} 7+7 \mathrm{Kf} 7$ ( 7 Kd 5 Ne 8 and White is not making progress) Nf5 $8 \mathrm{Nd} 5+\mathbf{K b} 7$ with a clear draw. 1 Ka 4 ? $\mathrm{Nc} 5+$ and $2 \ldots$ Ne6 followed by $3 \ldots$ Kc6 and $4 \ldots \mathrm{Kd} 7$ is even worse, while $1 \mathrm{Kc} 4 \mathrm{Ne} 5+$ and $2 \ldots \mathrm{Ng} 6$ just loses the pawn. So by elimination we arrive at the best move:

## 1 Ka 3 !

White threatens $2 \mathrm{Nc} 7 \mathrm{Nf} 63 \mathrm{Nd} 5+$, which failed in the original position as Black took the knight with check. Now:
(A) $1 \ldots \mathrm{Kc} 62 \mathrm{Ka} 2$ ! (not 2 Kb 2 ? Ne5 $3 \mathrm{Nd} 6 \mathrm{Nc} 4+$ ! or $3 \mathrm{Nf} 6 \mathrm{Nc} 4+$ 4 Kc 3 Nd 6 followed by $5 \ldots \mathrm{Ne} 8$ ! as above) with zugzwang (2...Kb6 3 Nc 7 or 2 ...Kc5 3 Nd 6 ).
(B) $1 \ldots \mathrm{Ka} 7$ and now the Black king cannot move to $\mathrm{a} 8, \mathrm{~b} 7, \mathrm{c} 8, \mathrm{a} 6$. c7 or, if the White king is as far away as the second rank, bo (due to Nc 7 ). So Black is condemned to play . . Kb 8 and ... Ka 7 ad infinitum and White wins easily by 2 Kb 2 Kb 83 Kc 2 Ka 74 Kd 2 Kb 85 Ke 2 Ka 76 Kf 2 (keeping to Black squares to avoid knight checks) Kb 87 $\mathrm{Kg} 3 \mathrm{Ka} 78 \mathrm{Kf4} \mathrm{~Kb} 6$ (at last Black can emerge from his prison, but it is too late) 9 Kf5 Kc6 10 Nf6 and wins.
(C) $1 \ldots$ Ka5 2 Kb 2 ! ( 2 Ka 2 is just as good, but not 2 Kb 3 ? Nc5 + and 3...Ne6) Ka4 (2 ...Kb4/b6 3 Nc 7 ) 3 Ka 2 Ka 54 Ka 3 and Black is in a fatal zugzwang. An unusual triangulation!

In the next study, zugzwang comes as a complete surprise after a great deal of patient manoeuvring,

White must keep the Black king confined so only one first move makes sense.

$$
1 \mathrm{Qg} 8+\quad \mathrm{Ka4}
$$



If $1 \ldots \mathrm{Kc} 2(1 \ldots \mathrm{~Kb} 2 / \mathrm{c} 32 \mathrm{Bg} 7+) 2 \mathrm{Qc} 4+\mathrm{Kb} 23 \mathrm{Bg} 7+$ and mate in two more moves.

$$
2 \text { Qc4 }+\quad \mathrm{Ka} 5
$$

The first moment of decision. $3 \mathrm{Qc} 5+\mathrm{Ka} 6$ and $3 \mathrm{Bb} 4+\mathrm{Kb} 64 \mathrm{Qc} 5+$ $\mathrm{Kb} 75 \mathrm{Qd} 5+\mathrm{Ka} 76 \mathrm{Bc} 5+\mathrm{Kb} 87 \mathrm{Bd} 6+\mathrm{Ka} 7$ both peter out to a draw.

## 3 Bd6!

Threatening mate in one and thereby transferring the bishop to c 7 with gain of tempo.

| $\mathbf{4} \mathrm{Bc} 7+$ | $\ldots \mathrm{Kbb}$ |
| :--- | :--- |
| $\mathbf{K b} 7$ |  |

4...Ka75 Qc5 + Kb76 Qd5 + transposes to the main line.

$$
\mathbf{5} \text { Qd5 }+!\quad \text { Ka7 }
$$

Now 6 Qb5 is tempting, but after 6.. Qc8 7 Qct a2! White can win the queen by $8 \mathrm{Bb} 6+\mathrm{Kb} 89 \mathrm{Ba} 7+$ but still only draws.

| 6 Bb6+ | Kb8 |
| :--- | :--- |
| 7 Qd7: | Qa6 |

Notice that if White had takert the e-pawn at move 5, Black would now have a check on h1. Black's queen is so confined that only two moves are possible and 7...Qb7 8 Qd6 + transposes to the main line.

## 8 Qc6!

$8 \mathrm{Bc} 7+\mathrm{Ka} 8$ and $8 \mathrm{Qc} 7+\mathrm{Ka} 8$ let Black escape, but now $9 \mathrm{Bc} 7+\mathrm{Ka} 7$ $10 \mathrm{Bb} 8+$ is a threat and $8 \ldots \mathrm{a} 2$ is no defence. As $8 \ldots \mathrm{Qc} 8$ loses to 9 $\mathrm{Ba} 7+$ Black's move is forced.

This is the position White has been aiming for. Without the Black pawns it is possible for White to force zugzwang, so the next task is to capture both pawns with check.

| 9 Qd6+ | Ka8 |
| :---: | :---: |
| $10 \mathrm{Q} \times \mathrm{a} 3+$ | Kb8 |
| 11 Qd6+ | Ka8 |
| 12 Qd8+ | Qb8 |
| 13 Qd5+ | Qb7 |
| 14 Qa5+ | Kb8 |
| 15 Qe5+ | Ka8 |
| $16 \mathrm{Qe8}+$ | Qb8 |
| 17 Qxe4+ | Qb7 |

It is still not clear how White is going to win and I suspect that if one had not seen the zugzwang position before it would be very hard to find the win even from this position, 17 moves into the solution! The psychological barrier is that the win involves forcing the Black king out of the corner, where it is apparently in most danger.

| 18 Qe8 + | Qb8 |
| :--- | :--- |
| 19 Qa4 + : | Kb7 |
| 20 Qb5! |  |



Zugzwang! Black has only three moves that do not immediately lose the queen or allow mate:
(A) $20 \ldots \mathrm{Qg} 821 \mathrm{Bd} 8+\mathrm{Ka} 7(21 \ldots \mathrm{Kc} 822 \mathrm{Qc} 6+\mathrm{Kb} 823 \mathrm{Bc} 7+$ ) 22 $\mathrm{Qb} 6+\mathrm{Ka} 823 \mathrm{Qc} 6+\mathrm{Ka} 724 \mathrm{Bb} 6+\mathrm{Ka} 625 \mathrm{Bc} 7+$ and mate in two more moves.
(B) 20..Qa8 $21 \mathrm{Ba} 5+\mathrm{Kc} 822 \mathrm{Qe} 8+\mathrm{Kb} 723 \mathrm{Qd} 7+\mathrm{Ka} 24 \mathrm{Qd} 6+$ ! Kb5 (24 ...Kb7 allows mate in two) 25 Qb4 + Kc6 26 Qe4 + winning the queen.
(C) $20 . \mathrm{Qc} 821 \mathrm{Bc} 5+\mathrm{Kc} 7$ (or $21 \ldots \mathrm{Ka} 822 \mathrm{Qa} 5+\mathrm{Kb} 723 \mathrm{Qb} 6+\mathrm{Ka} 8$ 24 Qa7 mate) 22 Qb6 + Kd7 23 Qd6 + Ke8 24 Qe7 mate.

We have already met. in the Halberstadt study earlier in this chapter, a position of mutual zugzwang. Such positions are particularly interesting when the players both strive to reach the critical position with the other side to move.


Kagan-Auni, Israel 1978
Normally the bishop is much superior to the knight in situations like this, where there are passed pawns on both sides of the board. White, by playing $\mathrm{Bbl}+$, can set his pawns in motion and support them with Ba2 later. Nevertheless, with best play this position is a draw. The main problem is that White has $\mathrm{RP}+\mathrm{B}$ of the wrong colour, so if Black can give up his knight for the g-pawn then he draws. There are also various stalemating resources Black can call upon.

$$
\begin{aligned}
& 1 \mathrm{Bb} 1+ \\
& 2 \mathrm{~g} 6+
\end{aligned}
$$

In the game White allowed his pawns to become blockaded and Black drew more easily: $2 \mathrm{Kf5}$ ( $2 \mathrm{Kg} 4 \mathrm{Ne} 73 \mathrm{Kh} 5 \mathrm{Kg} 84 \mathrm{Ba} 2+\mathrm{Kh} 85 \mathrm{Bf} 7$ is not zugzwang because of $5 \ldots \mathrm{Ng} 6$ ! drawing) $\mathrm{Ne} 7+3 \mathrm{Ke5} \mathbf{N g} 6+4$ Kd4 Nf8 5 Ke4 ( $5 \mathrm{Kc} 3 \mathrm{a} 26 \mathrm{~B} \times \mathrm{a} 2+\mathrm{Kg} 6$ ) $\mathrm{Kg} 86 \mathbf{K f 5} \mathbf{K h 8}$ (the simplest drawing line since now the knight can always to and fro between g6 and some other square) 7 Ba2 Ng6! 8 Ke6 Nh4 9 Bb1 Ng6 10 Kd5 Nh4 11 Ke4 (11 Kc5 Nf5 and $12 . . . \mathrm{N} \times \mathrm{h} 6$ ) Ng6 12 Kd 4 Nh4 13 Kc 3 a2! $14 \mathrm{~B} \times \mathrm{a} 2 \mathrm{Nf} 515 \mathrm{Be} \mathbf{N} \times \mathrm{h} 616 \mathrm{Kd} 4 \mathrm{Kg} 7 \frac{1}{2}-\frac{1}{2}$.

| $\mathbf{2}$ | g7 |
| :--- | :--- |

Black threatened 3...a2 so this was forced.

And now White must stop $4 \ldots \mathrm{Ng} 85 \mathrm{~h} 7 \mathrm{~K} \times \mathrm{g} 7$.
$4 \mathrm{Ba} 2 \quad \mathrm{Kg} 6$
Black prevents the threat of $5 \mathrm{~g} 8=\mathrm{Q} \mathrm{N} \times \mathrm{g} 86 \mathrm{~h} 7 \mathrm{Ne} 77 \mathrm{~h} 8=\mathrm{Q}+$.

## 5 Ke5

Now Black has some problems to solve. If $5 \ldots \mathrm{~K} \times \mathrm{h} 66 \mathrm{Kf6} \mathrm{Kh} 77 \mathrm{Kf} 7$ Kh6 (7...Ng8 $8 \mathrm{Bbl}+) 8 \mathrm{Bb} 1$ and Black is in zugzwang - he must play 8...a2, when $9 \mathrm{~B} \times \mathrm{a} 2 \mathrm{Kh} 710 \mathrm{Bbl}+\mathrm{Kh} 611 \mathrm{Bc} 2$ repeats the treatment. But as it turns out the position after White's 7th move in this line is one of mutual zugzwang, which explains Black's next move.
$5 \mathrm{Kf6} \quad$...Kh7!

If $6 \mathrm{Bb} 3 \mathrm{~K} \times \mathrm{h} 67 \mathrm{Kf} 6 \mathrm{Kh} 78 \mathrm{Bc} 2+(8 \mathrm{Kf} 7$ transposes to the note to White's 8 th move) $\mathrm{Kg} 89 \mathrm{Bb} 3+\mathrm{Kh} 7$ (threatening $10 \ldots \mathrm{Ng} 8+$ ), with a draw.

| 6 | ...K $\times$ h6 |
| :---: | :---: |
| $7 \mathrm{Kf7}$ | Kh7 |
| $8 \mathrm{BbI}+$ |  |

Surprisingly White cannot lose a tempo, for example $8 \mathrm{Bb} 3 \mathrm{Ng} 8!9$ $\mathrm{Bc} 2+\mathrm{Kh} 610 \mathrm{Bb} 1 \mathrm{Ne} 7$ transposing to the main line.
8
$\mathbf{9}$ Kf8 $\quad \ldots \mathrm{Kh6}$

There is nothing else to try, but now Black reduces the game to $Q+B \vee Q$.

| 9 | $\cdots \mathrm{Ng} 6+$ |
| :---: | :---: |
| $10 \mathrm{~B} \times \mathrm{g} 6$ | a 2 |
| $11 \mathrm{~g} 8=\mathrm{Q}$ | $\mathrm{a}=\mathrm{Q}$ |

Black need only be moderately careful to draw this, for instance 12 Qh7 + Kg 513 Qh5 + Kf4 14 Qf5 $+(14$ Qh4 $+\mathrm{Ke} 315 \mathrm{Qg} 3+\mathrm{Kd} 216$ $\mathrm{Qf} 2+\mathrm{Kcl} 17 \mathrm{Qel}+\mathrm{Kb} 218 \mathrm{Qe} 5+\mathrm{Ka} 219 \mathrm{Bf} 7+\mathrm{Kbl}$ draw) Kg3 15 $\mathrm{Qd} 3+(15 \mathrm{Qg} 5+\mathrm{Kf} 316 \mathrm{Bh} 5+\mathrm{Ke} 4$ and Black escapes to the queenside as above) $\mathrm{Kf} 416 \mathrm{Qe} 4+\mathrm{Kg} 317 \mathrm{Qe} 3+\mathrm{Kg} 4$ and White is not making progress.

The following position, although it is composed, is of some practical importance in the theory of rook endings.

Most positions with rook and two connected pawns v rook are easy wins, but here White is handicapped by the passive position of his rook. If he could transfer it to a5, say, then the win would be a matter of technique. But if 1 Ra 7 Rg 5 forces 2 Rh 7 . Conversely Black is also somewhat restricted, for if $1 \ldots \mathrm{Rb} 3$ in the original position, then


Win

G. M. Kasparian, Shakhmaty v SSSR 1946

2 Ra7 and $2 \ldots$ Rh3 3 Ra5 or $2 \ldots$ Rb5 3 h6 win for White. So to prevent White from activating his rook, Black must keep his own rook on the $g$ - or h-files, while at the same time preventing the White king from advancing to support the pawns. The winning plan appears simple-just move the king over to the kingside to drive the Black rook away from the g3 and h3 squares, when White either frees his rook or advances his king. But if 1 Kb 2 Rh 32 Kc 2 Rg 33 Kd 2 Rh 3 4 Ke 2 Rg 35 Kf 2 Rh 3 , White is at a loss for a move, since 6 Kg 2 Rb 3 7 Ra 7 Rb 5 prevents 8 h6 due to the position of the White king, while if $6 \mathrm{Kfl} \mathrm{Rf3}+7 \mathrm{Ke} 2(7 \mathrm{Kel} \mathrm{Re3}+8 \mathrm{Kd} 2 \mathrm{Rh} 3!) \mathrm{Rg} 3$ ! 8 Kf 2 Rh 3 repeats. But if it were Black to move in the position after $5 \ldots \mathrm{Rh} 3$ the rook really would have to quit its post ( $5 \ldots \mathrm{Rb} 36 \mathrm{Ra} 7$ or $5 \ldots \mathrm{Rh} 1$ 6 Kg 3 ). So this is a position of mutual zugzwang and White must aim to arrive at it with Black to move.

## 1 Ka 2 !

The only move to win. If White ever plays his king to the first rank the position becomes drawn, since Black may check on the third rank and when White finally moves to the second rank Black can choose whether to play ... Rg 3 or ...Rh3.

$$
1 \quad . . \mathrm{Rh} 3
$$

and the rest is straightforward: $\mathbf{2} \mathbf{~ K b} 2 \mathbf{R g} 3 \mathbf{3} \mathbf{~ K c} 2 \mathbf{R h} 34 \mathbf{~ K d} 2 \mathbf{R g} 35$ Ke2 Rh3 6 Kf2 (White has the position he has been aiming for) Ra3 (6...Kf8 $7 \mathrm{Kg} 2 \mathrm{Ra} 38 \mathrm{Rf} 7+\mathrm{Kg} 89 \mathrm{~h} 6$ threatening $10 \mathrm{~h} 7+$ wins, while 6. Rh4 7 Kg 3 Ra 4 is similar to the main line) $7 \mathbf{R b} 7$ (threatening h6) Rh3 8 Rb5 Kg7 9 Kg2 Rh4 (9...Ra3 $10 \mathrm{Rb} 7+\mathrm{Kh} 611 \mathrm{Rh} 7+$ and 12 g7 wins) $10 \mathrm{Kg} 3 \mathrm{Rh} 111 \mathrm{Rb} 7+\mathrm{Kg} 812 \mathrm{Kg} 4 \mathrm{Rg} 1+13 \mathrm{Kf5} \mathrm{Rh} 114 \mathrm{Kg} 5$ Rg1+ 15 Kh6 and wins.

Kasparian specialises in positions of mutual zugzwang. The next study contains one of the most subtle moves I have ever seen!

G. M. Kasparian, Ist Pr., Kubbel Memorial Tny, 1946

Again a very natural position. One's first impulse is to try 1 h 7 , but after $1 \ldots$ Re6 + ! 2 K moves $\mathrm{Rh} 63 \mathrm{Rc} 5+\mathrm{K} \times \mathrm{d} 34 \mathrm{R} \times \mathrm{c} 7 \mathrm{R} \times \mathrm{h} 7$, White loses both his pawns.

## 1 Ng7!

Stopping the check on e6 and genuinely threatening 2 h7. If Black delays taking the pawn he loses, e.g. 1...Bf4 (1...Kd4 2 h7 Rh6 3 Nf5 +) 2 h7 Rh6 3 Rh5 R $\times \mathrm{h} 54 \mathrm{~N} \times \mathrm{h} 5$ Be5 5 Ke 3 followed by Nf4g6 winning the bishop. So he must capture immediately.


Not $3 \mathrm{R} \times \mathrm{c} 7 \mathrm{Rh} 2+$.
3 ...Ke5

Black plays to trap the knight. which is rather short of squares on g 7 .

| $\mathbf{4}$ R $\times$ c7 | Kf6 |
| :--- | :--- |
| 5 Ne8+ | Kf7 |
| 6 Re8 |  |

The play has been forced from move one, but now Black has to decide how to continue his counterplay. Pinning the knight immediately by $6 \ldots$ Rh 8 loses to $7 \mathrm{Nd} 6+$, so $6 \ldots$ Rg6 comes into consideration, intending $7 \ldots \mathrm{Rg} 8$ and after the forced reply 7 Nc 7 then $7 \ldots$ Rc6, immobilising both White's pieces. But in fact it is better to check first so as to give White an extra chance to go wrong.

$$
{ }^{6} \text { Kd1!! } \quad \text {...Re6+ }
$$

The only move to win, for reasons which become apparent later.

After 8 Ra 8 (providing for $8 \ldots \mathrm{Rg} 89 \mathrm{Nc} 7$ ) Rc6 White's rook and knight are tied up, so he can only try pushing his pawn; but after 9 $\mathrm{Ke} 2 \mathrm{Rc} 2+10 \mathrm{Ke} 3 \mathrm{Rc} 111 \mathrm{Ke} 4 \mathrm{Rc} 212 \mathrm{Kd} 5 \mathrm{Rc} 113 \mathrm{~d} 4 \mathrm{Rc} 214 \mathrm{Nd} 6+$ $\mathrm{e} \times \mathrm{d} 615 \mathrm{~K} \times \mathrm{d} 6 \mathrm{Rd} 216 \mathrm{~d} 5 \mathrm{Rd} 1$, the position is a theoretical draw.

## 8 <br> 9 Kd2!

...Rc6
and suddenly Black is in a fatal zugzwang, e.g. 9...Rc5 $10 \mathrm{Rf} 8+$ ! or $9 \ldots \mathrm{Kg} 610 \mathrm{Nd} 5$ ! or $9 \ldots$ e6 (or e5) 10 Nb 5 !, so White wins. But now suppose that White had played 7 Kd 2 instead of $\mathrm{Kd} 1!!$. Then White would have to move his king or pawn at move 9. Moving the king loses control over a square on the c-file, giving the Black rook a move, and since White cannot lose a move (e.g. 9 Kd 1 Rc 310 Ke 2 $\mathrm{Rc} 2+11 \mathrm{Kel} \mathrm{Rc} 1+12 \mathrm{Kd} 2 \mathrm{Rc} 6!$ ) he can make no progress. Pushing the pawn is no better, as 9 d 4 Rc 410 d 5 blocks d 5 and allows $10 \ldots \mathrm{Kg} 6$ ! and Black either returns to f 7 with his king, or, if White attacks Black's rook with his king, oseillates between c4 and cl. Similarly, if White had moved to the f-file at move 7 he would be too far away to go to d 2 at move 9 , and once again the result would be a draw.

For the final position in this chapter we take a study composed by a top player, in which both sides manoeuvre to put the other in zugzwang.


White has a decisive material advantage, but unfortunately Black threatens ...Be5 winning the queen, as to move away would allow Rh8 mate. But $1 \ldots$ Be 5 is not in itself a decisive threat because of the reply 2 Kg 7 , when after $2 \ldots \mathrm{~B} \times f 6+3 \mathrm{~g} \times \mathrm{f} 6$ Black ends up in zugzwang and loses his rook. But White must be careful not to run
out of tempo moves and end up in Lugzwang himself!

## 1 Kh6!

If (A) 1 g 6 ? Be5 $2 \mathrm{Q} \times \mathrm{e} 5+$ (other moves lose) $\mathrm{d} \times \mathrm{e} 53 \mathrm{~g} 7 \mathrm{f5} 4 \mathrm{e} \times \mathrm{f} 5$ $\mathrm{Kf7} 5 \mathrm{~g} \times \mathrm{f} 8=\mathrm{Q}+\mathrm{K} \times \mathrm{f} 86 \mathrm{c} 4 \mathrm{~b} \times \mathrm{c} 47 \mathrm{~b} \times \mathrm{c} 4 \mathrm{e} 48 \mathrm{c} 5 \mathrm{e} 39 \mathrm{c} 6 \mathrm{Ke} 710 \mathrm{f} 6+$ $\mathrm{K} \times \mathrm{f} 611 \mathrm{c} 7 \mathrm{e} 212 \mathrm{c} 8=\mathrm{Q} \mathrm{el}=\mathrm{Q} 13 \mathrm{Qf8}+\mathrm{Kg} 5$ with a draw. (B) 1 Kg 7 ? Be5 2 b4 (not 2 ct ? $\mathrm{B} \times \mathrm{f} 6+3 \mathrm{~g} \times f 6$ b4 and Black wins; but in playing b4 White has used up his reserve tempo) Bh2! 3 Qt1 ( $3 \mathrm{Kh} 7 / 6 \mathrm{Be} 54 \mathrm{Kg} 7$ repeats as well, but 3 g 6 ? Be5 and 3 c 4 ? b $\times \mathrm{c} 4$ $4 \mathrm{~b} 5 \mathrm{Be} 55 \mathrm{~b} 6 \mathrm{c} 36 \mathrm{~b} 7 \mathrm{~B} \times \mathrm{f} 6+7 \mathrm{~g} \times \mathrm{f} 6 \mathrm{Kd} 78 \mathrm{~K} \times \mathrm{f} 8 \mathrm{Kc} 7$ win for Black) Be5 + 4 Qf6 Bh2 and again a draw results. But 1 Kh6! threatens 2 Kh5 and so forces Black's hand.
1
$2 \mathrm{Kg} 7 \quad \ldots \mathrm{Be5}$

The same position as in (B) above, but with Black to move.

$$
2 \text {...Bh2 }
$$

Now 3 b 4 ? loses to 3 ... Be5, while king or queen moves lead only to a draw by repetition.

$$
3 c 4!\quad b \times c 4
$$

If 3...b4 $4 \mathrm{c} 5 \mathrm{~d} \times \mathrm{c} 5(4 \ldots$ Be5 $5 \mathrm{c} \times \mathrm{d} 6) 5 \mathrm{Qc} 6+\mathrm{Ke} 76$ Qb7 + KeX 7 Qc8+ picks up the rook. But after 3...b $\times \mathrm{c} 4$ White cannot reply 4 $\mathrm{b} \times \mathrm{c} 4$ because of $4 \ldots \mathrm{Be} 5$ and White would lose. However, by giving up the e-pawn White can force Black to gain a tempo and so put himself in zugzwang!

$$
4 \mathrm{e} 5!\quad B \times e 5
$$

4...d×e5 5 Qc6+ and 4...c $\times \mathrm{b} 35 \mathrm{e} \times \mathrm{d} 6$ are hopeless.
$5 \mathbf{b} \times \mathbf{c} 4 \quad B \times \mathbf{f 6 +}$
Or $5 \ldots \mathrm{Bh} 26 \mathrm{c} 5 \mathrm{Be} 5(6 \ldots \mathrm{~d} \times \mathrm{c} 57$ Qc6+) $7 \mathrm{c} \times \mathrm{d} 6 \mathrm{~B} \times \mathrm{f} 6+8 \mathrm{~g} \times \mathrm{f} 6$ winning.

| $6 \mathrm{~g} \times \mathrm{f6} 6$ | Rh 8 |
| :--- | :--- |
| $7 \mathrm{~K} \times \mathrm{h} 8$ | Kd 7 |
| 8 Kg 8 |  |

Avoiding the final trap 8 Kg 7 ? Ke6.

## 8 ...Ke6 <br> 9 Kg 7 and wins.

## 7 Manoeuvring

Of course manoeuvres occur at all stages of the game, but I am referring to those ideas which are generally restricted to the endgame. One of the most familiar is the idea of triangulation in king and pawn endings, but there are others. The following idea, which we call the Lasker manoeuvre, has considerable practical importance in rook and pawn endings and indeed some interesting grandmaster games involving it were played in the past decade.


Em. Lasker, Deutsches Wochenschach, 1890
White's advantage resides in his superior king position, but it is not easy to exploit this since as soon as the king emerges from the shelter of the pawn Black starts checking with his rook.

## 1 Kg 8

If 1 Rc 3 ? Kh7 $2 \mathrm{Rh} 3+\mathrm{Kg} 63 \mathrm{Rg} 3+\mathrm{Kh} 74 \mathrm{Rg} 1 \mathrm{Rf} 35 \mathrm{Rc} 1 \mathrm{Kg} 6$ and Black draws easily.


White can now drive the Black king back a rank and by repeating the same idea several times gradually force Black's king up the board.

3 Re6+ Kh5
Not $3 \ldots \mathrm{Kg} 5$ when 4 Kg 7 wins at once.
$4 \mathrm{Kg} 7 \quad \mathrm{Rg} 2+$

| 5 Kh7 | Rf2 |
| :---: | :---: |
| 6 Re5+ | Kh4 |
| 7 Kg 7 | Rg2+ |
| $8 \mathrm{Kh6}$ | Rf2 |
| $9 \mathrm{Rc4}+$ | Kh3 |
| 10 Kg 6 |  |

Although this does not threaten to promote the pawn, it does threaten $11 \mathrm{R} \times \mathrm{c} 2$ and therefore Black is once again forced to check.

| 10 | ...Rg2 + |
| :--- | :--- |
| $11 \mathbf{K h 5}$ | Rf2 |
| $12 \mathbf{R c 3}+$ | Kh2 |

And finally...

## $13 \mathbf{R} \times \mathbf{c} 2$ !

and wins. The board is just small enough for this to work. If there were nine ranks instead of eight the original position would only be a draw!

Here is a practical example featuring the Lasker manoeuvre:


Tukmakov-Smejkal, Leningrad 1973
In fact I have reversed the colours, i.e. Smejkal had the two pawns in the game. At first it seems that White must win since Black can only oscillate with his king, but White faces problems similar to those in the last diagram-he cannot come out with his king, which makes it difficult to advance the f-pawn, while the advance of the h-pawn by itself achieves nothing.

## 1 Ra8

Zugzwang must be White's main weapon. After 1 Kf8 Rf1 or 1 Ra5 Kh6 2 Kf8 Rf1 Black draws so White must try to arrange more favourable circumstances before playing Kf8.

After $2 \mathrm{Rh} 8+\mathrm{Kg} 53 \mathrm{Rg} 8+\mathrm{K} \times \mathrm{h} 54 \mathrm{Rg} 2 \mathrm{Kh} 4(4 \ldots \mathrm{Rb} 1$ ? $5 \mathrm{R} \times \mathrm{a} 2$ $\mathrm{Rb} 7+6 \mathrm{Kg} 8 \mathrm{Kg} 67 \mathrm{f} 7$ and wins) 5 Rd 2 ( 5 Kg 7 Kh 36 f 7 ? $\mathrm{K} \times \mathrm{g} 27$ $\mathrm{f} 8=\mathrm{Q}$ Rg1! and Black may even win!) Kh3 Black draws more easily.

## 2

.Kh7?!
The first inaccuracy. Black could have forced a draw by $2 \ldots$ Rb1! 3 $\mathrm{R} \times \mathrm{a} 2 \mathrm{Rb} 7+4 \mathrm{Ke} 8$ (Or $4 \mathrm{Ke} 6 \mathrm{Rb} 6+5 \mathrm{Kf} 5 \mathrm{Rb} 5+6 \mathrm{Kg} 4 \mathrm{Rb} 4+7 \mathrm{Kg} 3$ $\mathrm{Rb} 3+8 \mathrm{Kg} 2 \mathrm{~K} \times \mathrm{h} 59 \mathrm{f} 7 \mathrm{Rb} 8$ drawing) $\mathrm{Rb} 8+5 \mathrm{Kd} 7 \mathrm{Rb} 7+6 \mathrm{Kc} 6 \mathrm{Rt} 7$ 7 Rf 2 Kg 5 ! (Not $7 \ldots \mathrm{~K} \times \mathrm{h} 5$ ? 8 Kd 6 and White wins) winning the fpawn.

## 3 Ra6

White returns to the original position having given the move to Black and prepares an ambush along the sixth rank.

$$
3
$$

...Kh8?
This move finally throws away the draw. The correct line was $3 \ldots$ Kh6! 4 Kf8 Rbl! (Not $4 \ldots \mathrm{~K} \times$ h5? 5 f 7 with the Lasker win nor $4 \ldots$ Kh7? $5 \mathrm{Ra} 7+\mathrm{Kh} 86 \mathrm{f} 7$ transposing to the game) $5 \mathrm{f} 7+(5 \mathrm{R} \times \mathrm{a} 2$ $\mathrm{Rb} 8+$ is the note to Black's second move) Kh7 $6 \mathrm{R} \times \mathrm{a} 2(6 \mathrm{Ke} 7 \mathrm{Re} 1+$ draws) Rb8+7 Ke7 Rb7+8 Ke6 Rb6 $+9 \mathrm{Kd5} \mathrm{Rb} 5+10 \mathrm{Kc} 6$ (10 Ke4 $\mathrm{Rb} 4+11 \mathrm{Kf} 3 \mathrm{Rb} 3+12 \mathrm{Kg} 2 \mathrm{Rb} 813 \mathrm{Rf} 2 \mathrm{Rf} 8$ followed by ...Kg7) Rf5 $11 \mathrm{Ra} 7 \mathrm{Kg} 712 \mathrm{~h} 6+\mathrm{K} \times \mathrm{h} 613 \mathrm{Kd} 6 \mathrm{Kg} 714 \mathrm{Ke} 6 \mathrm{Rf} 6+$ picking up the last pawn.

## 4 Ra 7

Not 4 h6? Kh7 and White is without a good move.

| $\mathbf{5} \mathrm{Kf8}+\quad$ | KKh7 <br> Kh8 |
| :--- | :--- |

If $5 \ldots \mathrm{Kh} 66 \mathrm{f} 7$ and both $6 \ldots \mathrm{~K} \times \mathrm{h} 57 \mathrm{Kg} 7 \mathrm{Rg} 1+8 \mathrm{Kh} 7$ and $6 \ldots \mathrm{Rb} 1$ ( $6 \ldots \mathrm{Kh} 7$ transposes to the game) 7 Kg 8 ! $\mathrm{Rg} 1+8 \mathrm{Kh} 8 \mathrm{Rf} 9 \mathrm{Ra} 6+$ reduce to the Lasker win.

$$
6 \mathrm{f7} \quad \text { Kh7 }
$$

After $6 \ldots \mathrm{Rb} 17 \mathrm{Kc} 7$ ! ( $7 \mathrm{R} \times \mathrm{a} 2$ ? $\mathrm{Rb} 8+$ is the note to Black's third move) $\mathrm{Re} 1+8 \mathrm{Kf} 6 \mathrm{Rf} 1+9 \mathrm{Kg} 6{ }^{\prime} \mathrm{Rg} 1+10 \mathrm{Kh} 6$ White forces mate.

## 7 h6!

The only move as 7 Ra 3 Rb 1 ! leads to the draw mentioned above.
...Kh8
After $7 \ldots \mathrm{~K} \times \mathrm{h} 68 \mathrm{Kg} 8$ White has the Lasker win.

Now that the h-pawn prevents ...Kg7 White can win after 8...Rb1 $9 \mathrm{R} \times \mathrm{a} 2 \mathrm{Rb} 8+10 \mathrm{Ke}^{7} \mathrm{Rb} 7+11 \mathrm{Ke} 6 \mathrm{Rb} 6+12 \mathrm{Kd} 5 \mathrm{Rb} 5+13 \mathrm{Kc} 4 \mathrm{Rf} 5$ $14 \mathrm{Ra} 8+$.

## 9 Ra8

Since $9 \ldots \mathrm{~K} \times \mathrm{h} 6$ loses to 10 Kg 8 as before and $9 \ldots \mathrm{Kh} 8$ allows $10 \mathrm{Ke} 7+$ Black is finally forced to give up the a-pawn under unfavourable circumstances.

| 9 | $\ldots$ Rb1 |
| :--- | :--- |
| 10 R $\times$ a2 | Rb8 + |
| 11 Ke7 | Rb7+ |
| 12 Ke6 | Rb6+ |
| 13 Ke5 | Rb5 + |
| 14 Ke4 | Rb4+ |
| 15 Ke3 |  |

Not $15 \mathrm{Kd} 5 \mathrm{Rb} 5+$ and White cannot play to the c-file for fear of ...Rf5 nor 15 Kd 3 Rf4 $16 \mathrm{Ra} 7 \mathrm{~K} \times$ h6 draw. However 15 Kf 3 would also win.

| 15 | $\ldots R b 3+$ |
| :--- | :--- |
| 16 Ke2 | Rb8 |
| 17 Ra6 | Rb2+ |

Or $17 \ldots$ Rf8 18 Rf6 followed by the advance of the king to e 7 .

| 18 Ke3 |  | Rb3+ |
| :--- | :--- | :--- |
| 19 Ke4 |  | Rb4+ |
| 20 Ke5 |  | Rb5+ |
| 21 Kf6 |  |  |
|  |  | 1-0 |

The resemblance between this position and the following one is obvious, but the slight difference results in quite divergent play!

T. Petrosian-Karpov, USSR Ch. 1976

## 1 h4

White can make no progress without advancing this pawn, e.g. $1 \mathrm{Kf7}$ Rf1 $2 \mathrm{f} 6 \mathrm{Ra} 1!3 \mathrm{R} \times \mathrm{c} 3$ ( 3 Rc 7 c 2 is the same) $\mathrm{Ra} 7+4 \mathrm{Ke} 6 \mathrm{Ra} 6+5$ $\mathrm{Ke} 7 \mathrm{Ra} 7+6 \mathrm{Kd} 6 \mathrm{Ra} 6+7 \mathrm{Rc} 6 \mathrm{R} \times \mathrm{c} 6+8 \mathrm{~K} \times \mathrm{c} 6 \mathrm{Kg} 6$ with a draw. However if White succeeds in advancing his pawn to $h 5$ then this variation would be winning.

$$
1 \text {...Rc2! }
$$

Black realises that his best policy is to wait. If $1 \ldots \mathrm{c} 2$ ? ( $1 \ldots$ Ral? 2 $\mathrm{R} \times \mathrm{c} 3 \mathrm{Ra} 6+$ fails as White can safely exchange rooks as in the last note) 2 h 5 (Black is in zugzwang now) Rh1 $3 \mathrm{R} \times \mathrm{c} 2 \mathrm{R} \times \mathrm{h} 54 \mathrm{Rg} 2 \mathrm{Rh} 1$ $5 \mathrm{Kf} 7 \mathrm{Kh} 66 \mathrm{f} 6 \mathrm{Ra} 17 \mathrm{Rh} 2+\mathrm{Kg} 58 \mathrm{Kg} 7$ and the f-pawn promotes.

| $\mathbf{2} \mathbf{~ h 5}$ | Re1 |
| :--- | :--- |
| $\mathbf{3} \mathbf{~ K f 7}$ | Rc2 |

Now 3...Ra1 doesn't work while 3...c2 4 Kf 6 loses as above.
4 f6 Rc1
White will need to use zugzwang so his first task is to deprive Black of tempo moves by forcing him to play ...c2.

## 5 Ke7! <br> c2

$5 \ldots \mathrm{Re} 1+$ loses since 6 Kf 8 Rcl 7 f 7 c 2 8 h6 transposes into the note to Black's 10th move.

## 6 Kf7

Not $6 \mathrm{Kf8}$ ? Rf1. After $6 \mathrm{Kf7}$ the position is the same as in the last example after 1 Ra8 except that the rooks and Black pawn are on the c-file rather than the a-file. Why is this important? I musn't reveal the secret too carly, but it is true that the position after White's seventh move in Tukmakov-Smejkal is a win no matter which file
the rooks are on. So Karpov has to play so as to avoid reaching this position (i.e. White king f 8 and pawns on $\mathrm{f7}$ and h6).

| 6 | $\quad . . K h 6$ |
| :--- | :--- |
| 7 Re5 | Kh7 |

The first difference is that the draws missed by Black in the last example don't work here, for example 7...Ra1 $8 \mathrm{R} \times \mathrm{c} 2 \mathrm{Ra} 7+9 \mathrm{Ke} 6$ Ra6 $+10 \mathrm{Ke} 5 \mathrm{Ra} 5+11 \mathrm{Kd} 6 \mathrm{~K} \times \mathrm{h} 5$ (11..Ra6+ 12 Rc 6 is the point) $12 \mathrm{f} 7 \mathrm{Ra6}+$ ( $12 \ldots \mathrm{Ra} 813 \mathrm{Rf} 2$ ) 13 Ke 7 hiding on g 7.

| $\mathbf{8}$ Re6 | Kh6 |
| :--- | :--- |
| $\mathbf{9}$ Kf8 | Kh7 |

Here again $9 \ldots \mathrm{Ra} 1$ loses with the White rook on the c-file.

$$
10 \text { Re7+ Kh8! }
$$

After $10 \ldots \mathrm{Kh} 611 \mathrm{f} 7 \mathrm{Kh} 7(11 \ldots \mathrm{~K} \times \mathrm{h} 512 \mathrm{Kg} 7$ is the Lasker win) 12 h6 White has the position he wants and wins as in Tukmakov-Smejkal.

## 11 f 7

All as before, but now we see the second difference.

$$
11 \text {...Ra1! }
$$

This lost before, but draws now because after $12 \mathrm{Ke} 7 \mathrm{Re} 1+13 \mathrm{Kf} 6$ $\mathrm{Rf} 1+14 \mathrm{Kg} 6 \mathrm{Rg} 1+15 \mathrm{Kh} 6 \mathrm{cl}=\mathrm{Q}$ ! is check and so Black forces stalemate by $16 \mathrm{R} \times \mathrm{c} 1 \mathrm{Rg} 6+!$. It is hard to see from the diagram that Black only draws because a queen on cl attacks h6! Petrosian tried $12 \mathbf{R} \times \mathrm{c} 2$ instead but after $12 \ldots \mathrm{Ra}+13 \mathrm{Ke} 7 \mathrm{Ra} 7+14 \mathrm{Kf} 6 \mathrm{Ra}+15$ Kg5 Ra5 + $16 \mathrm{Kg} 4 \mathrm{Ra} 4+17 \mathrm{Kg} 3 \mathrm{Ra} 3+18 \mathrm{Kg} 2 \mathrm{Kg} 719 \mathrm{Rf} 2 \mathrm{Kf} 820$ Rf5 (20 h6 Ra6 21 h 7 Rh6 picks up the h-pawn) Ra6 (not 20...Ra7? when 21 h6 Ra6 22 Rh5! wins) $21 \mathbf{K g} 3$ Rh6 $22 \mathbf{K g} 4 \mathrm{Rh} 7$ a draw was agreed in view of the inevitable $23 \ldots \mathrm{R} \times \mathbf{f} 7$.

Study composers bave elaborated the original Lasker idea in various ways. The following composition displays ideas which recur in the game position of diagram 85.

J. Hasek, 1st Pr., Cesk. Sach 1936

## 1 Kf7

Black threatened $1 \ldots$ Rel + so there was not a lot of choice, and 1 f7? Rel $+2 \mathrm{Kd5}$ (2 Kf6 $\mathrm{al}=\mathrm{O}+$ draws) $\mathrm{Rd} 1+3 \mathrm{Kc} 4 \mathrm{Rc} 1+4 \mathrm{~Kb} 3$ (4 Kd3 is similar) Rf1 $5 \mathrm{R} \times \mathrm{a} 2+\mathrm{Kg} 36 \mathrm{Ra} 7 \mathrm{Kg} 47 \mathrm{Kc} 4 \mathrm{Kg} 58 \mathrm{Kd} 5$ Kg 69 Ke6 Rf6+ is only a draw.

$$
1 \quad \ldots \mathrm{Kf3}
$$

Just three moves are enough to make the win clear, but they are by no means easy! In order to understand the play, imagine that the White king and pawn have advanced to $f 8$ and $f 7$ respectively. Where must the Black king be in order to draw, with White to move? The $\mathrm{e}, \mathrm{f}$ and g -files are immediately fatal, since, the king blocks a vital Black rook check, while with the king on the h-file White can win with the Lasker manoeuvre (except for h 1 , when a tempo move such as 1 Ra 7 forces Black to put his king on a losing square). If the king is on d1 White wins at once ( 1 Ke 7 ). d 2 loses to $1 \mathrm{Ke} 7 \mathrm{Rel}+2 \mathrm{Kd} 6$ Rf1 $3 \mathrm{R} \times \mathrm{a} 2+$, and d3 loses after $1 \mathrm{Ke} 7 \mathrm{Rel}+2 \mathrm{Kd} 6$ Rf1 3 Ke6 Rel + $4 \mathrm{Kd5} \mathrm{Rf} 15 \mathrm{Ra} 3+$ and $6 \mathrm{R} \times \mathrm{a} 2+$. Black draws if his king is on any other square. The nearest drawing square to g 2 , the Black king's original position, is d 4 , so his first move is understandable. White's task is to advance the pawn to $f 7$, while keeping the Black king bottled up in the losing zone. Let's see how this is possible after alternative king moves:
(1) $1 \ldots \mathrm{Kf} 22 \mathrm{Ra} 4$ ! (2 Kf8? Ke3! 3 f 7 Kd 4 is just in time to draw, while 2 Ra 3 Kg 1 ! 3 Kg 7 Kh 1 forces White to return with 4 Kf 7 , although White can still win in this line by reverting to the correct plan) Kg 1 (2...Ke3 3 Ke6 Kd3 $4 \mathrm{f} 7 \mathrm{Re} 1+5 \mathrm{Kd} 5 \mathrm{Rf} 16 \mathrm{Ra} 3+$ wins, as do $2 \ldots \mathrm{Kg} 33 \mathrm{Kg} 6$ or $2 \ldots \mathrm{Kf} 33 \mathrm{Kf8}$, followed by 4 f 7 and the Black king cannot reach a drawing square) 3 Kg 8 ! (not 3 Kg6? Kh1 4 Rh4+ $\mathrm{Kg} 15 \mathrm{f} 7 \mathrm{Rf} 16 \mathrm{Ra} 4 \mathrm{Rf} 27 \mathrm{R} \times \mathrm{a} 2 \mathrm{R} \times \mathrm{a} 28 \mathrm{f} 8=\mathrm{Q} \mathrm{Rg} 2+$ with perpetual
check, while on other seventh moves Black starts checking. Also bad is 3 Kg 7 ? Kh1 $4 \mathrm{Rh} 4+\mathrm{Kg} 25 \mathrm{f} 7 \mathrm{Rg} 16 \mathrm{Ra} 4 \mathrm{Kh} 1+$ ! drawing, while $6 \mathrm{f}=\mathrm{Q}$ fails since Black promotes with check-White must cover f 8 with his king and at the same time avoid the check from a1, hence 3 Kg 8 !) Kh1 $4 \mathrm{Rh} 4+\mathrm{Kg} 2(4 \ldots \mathrm{Kg} 15 \mathrm{f} 7 \mathrm{Rf} 16 \mathrm{Ra} 4$ wins) 5 f 7 Rg 16 $\mathrm{f} 8=\mathrm{Q}(6 \mathrm{Ra} 4$ ? Kh1 + ) a $1=\mathrm{Q} 7 \mathrm{Rg} 4+\mathrm{Kh} 38$ Qf3 $+\mathrm{Kh} 29 \mathrm{Qf} 2+\mathrm{Kh} 3$ 10 Qh4 mate.
(2) $1 \ldots \mathrm{Kh} 3$ (1 ...Kh2 2 Kf 8 and $2 \ldots \mathrm{Rf} 1$ is impossible as the Black pawn drops off with check) 2 Ra4! (zugzwang forcing the king back to the unpleasant second rank) Kh2 ( $2 \ldots \mathrm{Kg} 33 \mathrm{Kg} 6$ and 4 f 7 ) 3 Kf 8 followed by 4 f 7 and Black is well away from any drawing squares.

## 2 Ra4!

Necessary since 2 Ra5, for example, allows $2 \ldots$ Ke4 3 Ke6 Kd4, reaching safety.

$$
2 \text {...Kf2 }
$$

Black is helpless, e.g. $2 \ldots \mathrm{Ke} 2 / \mathrm{e} 33 \mathrm{Ke} 6$ or $2 \ldots \mathrm{Kg} 33 \mathrm{Kg} 6$ or $2 \ldots \mathrm{Kg} 2$ 3 Kf 8 ( 3 Kg 6 ? Kh1! as in variation 1 above only draws) and 4 f 7 . winning in every case.

## 3 Kf8:

Black is one tempo short of reaching the drawing area and might lose as follows: $\mathbf{3} \ldots \mathrm{Ke} 3$ ( $3 \ldots \mathrm{Kg} 34 \mathrm{f} 7 \mathrm{Kh} 3$ is the standard Lasker win) 4 f7 Kd3 5 Ke7 Re1 + 6 Kd6 Rf1 7 Ke6 Re1+8 Kd5 Rf1 $9 \mathrm{Ra3}+$ etc.

If, in the basic Lasker position of diagram 81, everything is moved one file to the left White can no longer win, e.g. $1 \mathrm{Kf8} \mathrm{Rf} 2+2 \mathrm{Kg} 8$ Re2 $3 \mathrm{Rb} 6+\mathrm{Kh} 54 \mathrm{Kf} 7 \mathrm{Rf} 2+5 \mathrm{Kg} 7 \mathrm{Rg} 2+6 \mathrm{Kh} 7 \mathrm{Re} 27 \mathrm{Rb} 5+\mathrm{Kh} 4$ and the White king is too far away from the pawn. But there are situations, even with a central pawn, in which a Lasker-type manoeuvre is still possible.


Zaitsev-Dvorecki, USSR 1973

Colours have been reversed, i.e. Dvorecki had the two pawns.

## 1 Ke7

Black's problem is the bad position of his rook in front of the pawn. If he could reach a position with the pawn on a 2 and the rook on the second rank then he would draw since, as we noted above, the Lasker idea does not work in this situation. So if $1 \mathrm{Kd} 6 \mathrm{Ra} 2!2 \mathrm{e} 6$ ? (or 2 Ke7? Re2 and 3...a2, so best is 2 Ke6, starting again) Rd2 +3 Kc6 $\mathrm{Re} 24 \mathrm{e} 7 \mathrm{a} 25 \mathrm{Kd} 7 \mathrm{Rd} 2+6 \mathrm{Ke} 8 \mathrm{~K} \times \mathrm{h} 7$ and Black draws.

$$
1 \quad \ldots K \times h 7
$$

If $1 \ldots \mathrm{Re} 12$ e6 Re3 $3 \mathrm{Kd} 6 \mathrm{Rd} 3+4 \mathrm{Kc} 5 \operatorname{Re} 3$ (4...Rc3+5 Kd4 wins) 5 Kd 5 and Black is in zugzwang, e.g, $5 \ldots \mathrm{Rg} 36 \mathrm{e} 7 \mathrm{Re} 37 \mathrm{Ra} 8+$ and wins.

$$
2 \text { e } 6
$$

Or 2...Kg6 $3 \mathrm{Ke} 8 \mathrm{Kf6}$ ( $3 \ldots \mathrm{a} 2$ transposes to the game) 4 e 7 Kg 7 (4...Re1 $5 \mathrm{Ra} 6+$ and $6 \mathrm{R} \times \mathrm{a} 3$ wins) $5 \mathrm{Ra} 4 \mathrm{a} 26 \mathrm{Rg} 4+\mathrm{Kf} 6$ (if $6 \ldots \mathrm{Kh} 7$ then the plan of $7 \mathrm{Rg} 2,8 \mathrm{Rd} 2$ and 9 Kd 7 wins) 7 Rg 2 Rb 1 (7... Re 1 $8 \mathrm{Rf} 2+$ and $9 \mathrm{R} \times \mathrm{a} 2$ ) $8 \mathrm{R} \times \mathrm{a} 2 \mathrm{Rb} 8+9 \mathrm{Kd} 7 \mathrm{Rb} 7+10 \mathrm{Kd} 6 \mathrm{Rb} 6+11$ Kc7 Re6 $12 \mathrm{Kd} 8 \mathrm{Rd} 6+13 \mathrm{Ke} 8$ and White wins.
The position after $2 \ldots \mathrm{a} 2$ is identical with that arising after five moves of a study by P. Keres, which gained third place in the 1947 USSR composing championship. It is interesting to compare the courses of game and study.
$3 \mathrm{Ke} 8+\quad$ Kg6
Other squares are no better.

$$
4 \mathrm{e} 7 \quad \mathrm{Kg} 5
$$

Black's best plan is to retreat his king to prevent the transfer of White's rook to the second rank, e.g. $4 \ldots \mathrm{Kg} 75 \mathrm{Ra} 3 \mathrm{Kg} 66 \mathrm{Rg} 3+$ and 7 Rg 2 , followed by 8 Rd 2 and 9 Kd 7 winning.

## 5 Ra5+

Not $5 \mathrm{Kf} 7 \mathrm{Rf} 1+6 \mathrm{Kg} 7 \mathrm{Re} 17 \mathrm{Ra} 5+\mathrm{Kh} 4$ ! and the Lasker plan still fails. Keres gave 5 Ra 3 as his main line, but the move played is equally good.
5 Ra3! $\quad$...Kh4

Now Black is in zugzwang and must either allow the White rook to transfer to the second rank or permit White to employ the Lasker manoeuvre. Zaitsev decides on the former. The main line of the Keres study shows how White wins in the latter case: $6 \ldots \mathrm{Kg} 47 \mathrm{Kf} 7$ $\mathrm{Rf} 1+8 \mathrm{Kg} 6 \mathrm{Rel}$ (the bad position of his king deprives Black of the
check on g 1 and this proves fatal) $9 \mathrm{Ra} 4+\mathrm{Kh} 310 \mathrm{Kf} 6 \mathrm{Rf} 1+11 \mathrm{Kg} 5$ $\mathrm{Rg} 1+12 \mathrm{Kh} 5 \mathrm{Re} 113 \mathrm{Ra} 3+\mathrm{Kg} 214 \mathrm{R} \times \mathrm{a} 2+\mathrm{Kf} 3$ (although White has won the a-pawn his slightly offside king makes the win a little tricky) 15 Ra 7 Re6 (if the White king supports the pawn Black is finished, so he must stop Kg6) 16 Kg 5 (threat $17 \mathrm{Kf5}$ and $18 \mathrm{Kf6}$ ) Ke4 17 Rb 7 ! (both this and 17 Rc 7 put Black in zugzwang, but not 17 Rd 7 ? Ke5! when it is White who suffers from zugzwang and only draws) Ke5 (forced, to keep the White king out) 18 Rd 7 Ke 419 Rd 1 ! Kf3 (forced) $20 \mathrm{Rf} 1+\mathrm{Ke} 221 \mathrm{Rf} 7 \mathrm{Ke} 322 \mathrm{Kf} 5$ and the White king penetrates to f8 with decisive effect.

| 6 | ...Kg5 |
| :---: | :---: |
| $7 \mathrm{Rg} 3+$ | Kf4 |
| 8 Rg 2 | Kf3 |
| 9 Rh 2 |  |

White has an alternative win by $9 \mathrm{Rb} 2 \mathrm{Ke} 3(9 \ldots \mathrm{Kf} 410 \mathrm{Kf} 7$ and $9 \ldots \mathrm{Kg} 3 / \mathrm{g} 410 \mathrm{Rd} 2$ followed by 11 Kd 7 lose immediately) 10 Kd 7 $\mathrm{Rd} 1+11 \mathrm{Kc} 7 \mathrm{a} 1=\mathrm{Q} 12 \mathrm{e} 8=\mathrm{Q}+\mathrm{Kd} 413 \mathrm{Qh} 8+\mathrm{Kc} 414 \mathrm{Qg} 8+\mathrm{Rd} 5$ (14...Kc3 $15 \mathrm{Rb} 3+$ ) $15 \mathrm{Qg} 4+\mathrm{Rd} 416 \mathrm{Qe} 6+\mathrm{Rd} 517 \mathrm{Qe} 4+\mathrm{Rd} 418$ Qc2 + Kd5 $19 \mathrm{Rb} 5+$ mating, but the text move is much simpler.

$$
9 \text {...Ke3 }
$$

Forced, as if $9 \ldots \mathrm{Kg} 3 / \mathrm{g} 410 \mathrm{Rd} 2$ wins.

## 10 Rb 2

Placing Black in zugzwang, since if his king moves to the d-or f-file White can emerge with his own king without allowing a check.

| 10 | $\quad . . K e 4$ |
| :--- | ---: |
| $11 \mathrm{Re} 2+\quad$ | Kd3 |

Now there is no choice.

since after 13...Kd2 14 Qat (not 14 Qe5?? Rdl) Kc3 15 Kc 7 Kb 2 (15...Kd3 16 Qb3 + Ke4 17 Qc4 + Kf5 18 Qd5 + Kg6 19 Qe6 + Kh7 20 Qf7 + is an amusing line leading to the win of the rook) $16 \mathrm{Qd} 4+$ Kbl 17 Qe5 White wins the rook.

With the knowledge gained from the previous examples, it is easy to solve the following study.

N. Kopaev, 2nd Pr., Shakhmaty, 1951

As we have mentioned before, 1 Ra8 Re3 2 Ra5 + Kh4! gives a position in which the Lasker plan doesn't work.

## 1 Re5+ <br> Kh4

Black naturally retreats on to the h-file, so that if $2 \mathrm{Ra} 5 \mathrm{Re} 33 \mathrm{Kf7}$ Rf3 +4 Kc 8 Rf 2 the Black king is in the best possible position to prevent White employing the Lasker manoeuvre.

$$
2 \text { Rh5 }+!
$$

This tactical point prevents the above defence by forcing the king on to the less favourable $g$-file.
$2 \quad \because . \mathrm{Kg} 4$
If $2 \ldots \mathrm{~K} \times \mathrm{h} 53 \mathrm{e} 8=\mathrm{Q}+\mathrm{Kg} 5(3 \ldots \mathrm{Kg} 4 / \mathrm{h} 44 \mathrm{Qu} 4+) 4 \mathrm{Qe} 5+$ followed by either $5 \mathrm{Qe} 2+$ or $5 \mathrm{Qh} 2+$ picking up the pawn.

| $3 \mathrm{Ra5}$ | Re 3 |
| :--- | :--- |
| $4 \mathrm{Kf7}$ | $\mathrm{Rf} 3+$ |

The position of the Black rook on the third rank (rather than the second) prevents the immediate application of the standard plan, since after $5 \mathrm{Kg} 6 \mathrm{Re} 36 \mathrm{Ra} 4+\mathrm{Kh} 37 \mathrm{Kf6}$ ( $7 \mathrm{Kf} 7 \mathrm{Rf} 3+8 \mathrm{Ke} 8!$ transposing to the main line does still win, however) $\mathrm{Rf} 3+8 \mathrm{Kg} 5$ $\mathrm{Rg} 3+9 \mathrm{Kh} 5 \mathrm{Re} 3$ there is no check on the third rank. The right idea is to force Black to defend his pawn by putting the rook on the second rank and only then attempting the above manoeuvre.

5 Ke 8 !
Rf2
and now everything is as before: $6 \mathrm{Kd} 7 \mathrm{Rd} 2+7$ Keb Re2 +8 Kf 6 $\mathbf{R f} 2+9 \mathrm{Kg} 6 \mathrm{Re} 210 \mathrm{Ra} 4+\mathbf{K h} 311 \mathrm{Kf} 6 \mathrm{Rf} 2+12 \mathrm{Kg} 5 \mathrm{Rg} 2+13 \mathrm{Kh} 5$ Re2 $14 \mathrm{Ra} 3+$ and $15 \mathrm{R} \times \mathrm{a} 2$ winning.

Rook and pawn endings seem to be especially productive of systematic manoeuvres and we give a few unusual examples from practical play.


Black's method of capitalising on his advanced passed pawn is very instructive, since it is not at once apparent that the White king is on a bad square.

$$
1 \quad . . . g 2
$$

$1 \ldots \mathrm{Rf} 8+$ would transpose to the game.

## 2 RdI Rf8+!

The tempting 2 ...Rf1 is not clear after $3 \mathrm{Rd} 8!\mathrm{Kh} 6(3 \ldots \mathrm{~g} 1=\mathrm{Q} 4 \mathrm{Rg} 8+$ Kf6 $5 \mathrm{R} \times \mathrm{g} 1 \mathrm{R} \times \mathrm{gl} 6 \mathrm{~b} 5 \mathrm{Rb} 17 \mathrm{c} 4 \mathrm{Ke} 58 \mathrm{Kc} 7$ or $7 \ldots \mathrm{Rb} 48 \mathrm{Kd} 7 \mathrm{Ke} 5$ $9 \mathrm{c} 5 \mathrm{R} \times \mathrm{b} 510 \mathrm{c} 6$ are both draws, while $3 \ldots \mathrm{Rf} 64 \mathrm{RdI}$ doesn't inprove Black's position) $4 \mathrm{Rg} 8 \mathrm{Rf} 8+5 \mathrm{R} \times \mathrm{f} 8 \mathrm{gl}=\mathrm{Q} 6 \mathrm{Rf} 6+\mathrm{Kg} 57 \mathrm{Rc} 6$, when White has excellent chances of setting up a complete blockade. The move played has the virtue of allowing the rook to return to the second rank with gain of tempo if necessary.

| $\mathbf{3} \mathrm{Kc7}$ | Rf1 |
| :--- | :--- |
| $\mathbf{4}$ Rd8 |  |

White's moves are forced, for example $4 \mathrm{Rd} 7 \mathrm{Kg} 65 \mathrm{Rd} 6+\mathrm{Kg} 7$ and promotes.

4 ...Rf7+
If White plays 5 Kc 6 then $5 \ldots \mathrm{Rf} 6+$ and $6 \ldots \mathrm{gl}=\mathrm{Q}$.

$$
5 \mathrm{Kc} 8 \quad \mathrm{Kg} 6
$$

Black has repeated the position after $1 \ldots g 2$, except that his king has moved to g6. Now the win is easy.
due to $6 \mathrm{Rd} 1 \mathrm{Rf} 17 \mathrm{Rd} 8 \mathrm{Kg} 78 \mathrm{Rd} 7+\mathrm{Kg} 8$.


Borkowski-Dieks, Groningen 1974-5
White would like to evade the checks by 1 Kb 7 , but $1 \ldots \mathrm{~b} 32 \mathrm{R} \times \mathrm{a} 3$ b2 threatens to promote with check, ensuring at least a draw for Black. Moreoever, $1 \mathrm{Rc} 5 \mathrm{R} \times \mathrm{c} 5+2 \mathrm{~K} \times \mathrm{c} 5 \mathrm{a} 23 \mathrm{c} 8=\mathrm{Q} \mathrm{a} 1=\mathrm{Q}$ offers no winning chances. So how does White make progress?

| $\mathbf{1}$ Kd7 | Rd3+ |
| :--- | :--- |
| $2 \mathbf{K e 7}$ | Rc3 |
| $\mathbf{3}$ Kd8 | Rd3+ |

Black must return to d3, as 3 ...b3 $4 \mathrm{R} \times \mathrm{a} 3$ is hopeless if he cannot promote with check. But now that the White king is on the best possible square, he can contemplate a queen ending.


This natural move leads to a forced loss, so Black should have tried $4 \ldots \mathrm{R} \times \mathrm{d} 5+5 \mathrm{e} \times \mathrm{d} 5 \mathrm{a} 26 \mathrm{c} 8=\mathrm{O} \mathrm{al}=\mathrm{Q} 7 \mathrm{Qh} 3+\mathrm{Kg} 68 \mathrm{Qe} 6+\mathrm{Kh} 79$ Qe4+Kg8, although 10 d 6 still offers White good winning chances, e.g. $10 \ldots \mathrm{Qa} 5+(10 \ldots \mathrm{~b} 311 \mathrm{Qe} 6+$ and $12 \mathrm{Q} \times \mathrm{b} 3$ ) $11 \mathrm{Ke} 7 \mathrm{Qg} 5+12$ Ke6 Qf6 + $13 \mathrm{Kd5} \mathrm{Qg} 5+14 \mathrm{Kc6} \mathrm{Qcl}+15 \mathrm{~Kb} 7$ and the pawn advances. After the move played, however, Black threatens $5 \ldots \mathrm{a} 2$ and it is hard to see what White can play apart from 5 Ra 5 .
$5 \mathrm{Rh} 5+$ !
This cunning move forces the king on to an inferior square.

$$
5 \quad \text {...Kg6 }
$$

Black had only a choice of evils. After $5 \ldots \mathrm{Kg} 8$ White would go into reverse gear with $6 \mathrm{Ra} 5 \mathrm{Rd} 3+7 \mathrm{Ke} 7 \mathrm{Rc} 38 \mathrm{Kd} 7 \mathrm{Rd} 3+9 \mathrm{Kc} 6 \mathrm{Rc} 3+$ and now 10 Rc5 does win since White promotes with check.

$$
6 \text { Ra5 } \quad \text { Rd3+ }
$$

| $7 \mathbf{K e 7}$ | Re3 |
| :--- | :--- |
| $\mathbf{8} \mathbf{~ K d 7}$ | Rd3+ |
| $\mathbf{9} \mathbf{K c 6}$ | Re3+ |

Back to the start, but what is the significance of the location of Black's king?

| $10 \mathrm{~Kb} 7!$ | b 3 |
| :--- | :--- |
| $11 \mathrm{R} \times \mathrm{a} 3$ | b 2 |
| $12 \mathrm{Ra}+$ ! |  |

The point!

$$
\begin{array}{lr}
12 & \ldots \text { Kf7 } \\
13 \text { Rb6 } & \text { Rc2 } \\
14 \mathrm{c8}=\mathrm{Q} &
\end{array}
$$

1-0


Dommes-Sosonko, Leningrad 1963

The game continued $\mathbf{1} \mathbf{a 8}=\mathbf{Q}$ ? $\mathbf{R} \times \mathbf{a 8} \mathbf{2} \mathbf{R} \times \mathbf{a 8} \mathbf{K f 5} 3 \mathbf{R h 8}$ ( 3 Kc 5 h 3 4 Kd 4 Kf 4 is also a draw) Kg4 4 Kc 5 h 35 Kd 4 Kg 36 Ke 3 Kg 2 ! (not $6 \ldots \mathrm{~h} 2$ ? $7 \mathrm{Rg} 8+\mathrm{Kh} 38 \mathrm{Kf} 2!\mathrm{h} 1=\mathrm{N}+9 \mathrm{Kf} 3 \mathrm{Kh} 210 \mathrm{Rg} 7$, winning the knight or mating) 7 Ke 2 (if $7 \mathrm{Rg} 8+$, not $7 \ldots \mathrm{Kh} 18 \mathrm{Kf} 3 \mathrm{~h} 29 \mathrm{Ra} 8$, but 7...Kf1! with a draw) h2 8 Rg8 + Kh1 and a draw was agreed. But White could have won! The idea is that after White promotes and wins the Black rook his king needs to head back to e2. This takes one move less from b5 than from b6, so White must try to transfer his king to b5 with gain of tempo. Curiously the first step in this process is to put it on $b 7$.

## 1 Kb 7 !

White threatens $2 \mathrm{a} 8=\mathrm{Q} \mathrm{R} \times \mathrm{a} 83 \mathrm{~K} \times \mathrm{a} 8$ with a winning position, for if Black pushes his pawn to the seventh White can pick it up by Ral and Rh1. So the reply is forced.


After 2...Rf6+ White's plan succeeds: 3 Kb5 Rf8 (3...Rf5+4 Kb4 is the same) $4 \mathrm{a} 8=\mathrm{Q} \mathrm{R} \times \mathrm{a} 85 \mathrm{R} \times \mathrm{a} 8 \mathrm{Kf5} 5 \mathrm{Kc} 4 \mathrm{~h} 37 \mathrm{Kd} 3 \mathrm{Kf} 48 \mathrm{Ke} 2$ Kg3 9 Kf 1 h 2 (9...Kh2 $10 \mathrm{Kf} 2 \mathrm{Kh} 111 \mathrm{Ral}+\mathrm{Kh} 212 \mathrm{Ra} 3$ and mates) 10 Rh8 and wins. After 2...R88 White can utilise the fact that his king is not blocking the b-file to introduce a new threat.

## 3 Rb5 <br> h3

Black has no defence to the intended 4 Rb 8 , e.g. $3 \ldots \mathrm{Rf} 6+.4 \mathrm{Rb} 6$ or 3...Ra8 4 Kb 7 .

## 4 Rb8 Rf3

Or $4 \ldots \mathrm{~h} 25 \mathrm{a} 8=\mathrm{Q} \mathrm{R} \times \mathrm{b} 86 \mathrm{Qg} 2+$ and $7 \mathrm{Q} \times \mathrm{h} 2$ winning.

$$
5 \mathrm{Rb} 6+\quad \mathrm{Kg} 7
$$

If $5 \ldots \mathrm{Kg} 5$ then $6 \mathrm{Rb} 5+$ and $7 \mathrm{a} 8=\mathrm{Q}$.

$$
6 \mathrm{a} 8=Q
$$

and after $6 \ldots \mathrm{Ra} 3+7 \mathrm{~Kb} 7 \mathrm{R} \times \mathrm{a} 88 \mathrm{~K} \times \mathrm{a} 8$ Black can give up.
The final rook and pawn ending is a study in which White must manocuvre with exceptional care to gain the full point.


Win
E. Zepler, 3rd Pr., Schweizerische Schachzeitung, 1923-4

White has no winning chances unless he does something active immediately, so the first few moves are easy.

| 1 d7 | Ke7 |
| :--- | :--- |
| 2 Rd6 | Kd8 |
| 3 a6 | Ra3 |

Black must prevent the White king from advancing to attack the pawn, or he will quickly find himself in zugzwang, e.g. 3...Ra2 $2+4$ Kg3 Ra4 5 Kh 4 and Black must give up his g-pawn, for 5 ...Rb4 loses to 6 a 7 Ra 47 Rh 6 ! $\mathrm{K} \times \mathrm{d} 78 \mathrm{Rh} 8$ ! After $3 \ldots \mathrm{Ra} 3$ White's problem is to transfer the move to Black, for with Black to play he would have a choice of allowing Kg 3 or playing ...g3, when the reply Kh3 wins. However, despite the restriction of Black's rook to the a-file, it is not so easy to do this, for if $4 \mathrm{Kh} 2 \mathrm{Rh} 3+5 \mathrm{Kgl}(5 \mathrm{Kg} 2 \mathrm{Ra} 3) \mathrm{Rg} 3+$, with many checks. The White king must venture over to the e-file to escape them, while at the same time preventing the advance of the g-pawn.

## 4 Kf2!

Not 4 Kf 1 ? Ra2 $5 \mathrm{Kg} 1 \mathrm{~g} 36 \mathrm{Kf1} \mathrm{Rf} 2+7 \mathrm{Kg} 1 / \mathrm{e} 1 \mathrm{Ra} 2$ and White has nothing better than $8 \mathrm{Kf1}$ with a draw.


If 5 Kel ? $\mathrm{g} 3!6 \mathrm{a} 7(6 \mathrm{Ke} 2 \mathrm{Rf} 2+7 \mathrm{Ke} 3 \mathrm{Ra} 2$ threatens $8 \ldots \mathrm{~g} 2$ and forces the draw) Ra3 $7 \mathrm{Rg} 6 \mathrm{~K} \times \mathrm{d} 78 \mathrm{Rg} 8 \mathrm{Ral}+9 \mathrm{Ke} 2 \mathrm{~g} 210 \mathrm{Kf} 2 \mathrm{Kc} 711$ $\mathrm{a} 8=\mathrm{Q}$ (or else $11 \ldots \mathrm{~Kb} 7$ draws) $\mathrm{g} 1=\mathrm{O}+12 \mathrm{R} \times \mathrm{gl} \mathrm{R} \times \mathrm{a} 8$ and Black draws.
$5 \quad$...Ra3
Now returning to the f-file just repeats the position while moving to the d-file allows ..g3, when the White king is too far away.

$$
6 \text { Ke1! Re3+ }
$$

White wins more easily after $6 \ldots \mathrm{~g} 37 \mathrm{Kf1} \mathrm{Ra} 28 \mathrm{Kg} 1$, with zugzwang, or $6 \ldots \mathrm{Ra} 27 \mathrm{Kf} 1$ transposing to the main line.

## 7 Kd2

Of course not 7 Kdl ? g3.


White's triangulation has transferred the move to Black, who must avoid $8 \ldots \mathrm{~g} 39 \mathrm{Kfl} \mathrm{Ra} 210 \mathrm{Kgl}$ or $8 \ldots \mathrm{Ra} 1 / \mathrm{a} 49 \mathrm{Kf} 2 \mathrm{Ra} 310 \mathrm{Kg} 2$.


If $9 \ldots \mathrm{~g} 310 \mathrm{Kg} 1$ or $9 \ldots \mathrm{Ra} 310 \mathrm{Kg} 2$, while any other square on the a-file receives the same reply as the text move.

| $10 \mathrm{KF} 2!$ | Ra 3 |
| :--- | :--- |
| 11 Kg 2 |  |

White's eight-move manoeuvre has succeeded in losing a move and
now the play is simple: $\mathbf{1 1} \ldots$ Ral $12 \mathrm{Kg} 3 \mathrm{Ra4} 13 \mathrm{Kh} 4$ etc.
As we saw in the last example, triangulation can occur in endings other than the king and pawn variety. Here are a few more such positions.


Botvinnik-Sozin, USSR 1929
Suppose that Black is to move in the initial position. Then he must lose at once, for example 1...Bh7 $2 \mathrm{Kf} 8 \mathrm{Kf5} 3 \mathrm{Kg} 7$, or $1 \ldots \mathrm{Kf5} / \mathrm{h} 52$ Kf8 Bh7 3 Kg 7 , or $1 \ldots \mathrm{Kh} 72 \mathrm{f} 5$ followed by $3 \mathrm{f} 6 \mathrm{Kg} 64 \mathrm{~h} 7 \mathrm{~K} \times \mathrm{h} 75$ f 7 , or finally $1 \ldots \mathrm{Bb} 32 \mathrm{f} 5+\mathrm{Kh} 73 \mathrm{f6}$, as in the last line. In the game White missed his chance and allowed Black to transfer his bishop to the b1-f5 diagonal via e6 as follows: 1 Ke8? Be6 2 Kf8 Bf5 3 Ke7 Bc2 4 Kd6 Bd3 5 Ke6 Bc4+ 6 Ke7 ( 6 Ke5 Bd3 7 f5 + B $\times f 58$ h7 K $\times \mathrm{h} 7$ $9 \mathrm{~K} \times \mathrm{f} 5 \mathrm{Kg} 7$ is only a draw, as one can easily check by counting) $\mathbf{B d} 3$ and Botvinnik could make no progress, the game ending in a draw. The important point is that Black can only move his bishop to the squares e6 or h7, for otherwise $55+$ is a winning reply. So White must be careful to cover e 6 with his king whenever the bishop is on 98 .

## 1 Kd7! Bh7

Or $1 \ldots \mathrm{Kff}(1 \ldots \mathrm{Kf} 72 \mathrm{f} 5 \mathrm{Bh} 73 \mathrm{~g} 6+\mathrm{B} \times \mathrm{g} 64 \mathrm{f} \times \mathrm{g} 6+\mathrm{K} \times \mathrm{g} 65 \mathrm{Kc} 6$ wins by a single tempo) 2 Ke 8 Kg 6 (or else 3 Kf 8 and 4 Kg 7 wins) 3 Ke 7 and Black is in zugzwang.
2 Ke6
3 Ke7 $\quad$ Bg8+
and wins.

V. Bron, 2nd Hon. Men., USSR 1948

Here the triangulation idea is well disguised and there is a good deal of preparatory work to be done first. If Black could extract his knight from the corner the game would be a sure draw, so White's first priority is to maintain his bind. $1 \ldots \mathrm{Kg} 7$ and $1 \ldots \mathrm{Nf} 6$ must be stopped, so White's first move is forced.

## 1 Kf7 Nh6+

If 1...h6 2 Nf 5 Kh 73 Nd 6 transposes to the main line after 7 Nd 6 .

| $2 \mathbf{K f 8}$ | $\mathbf{N g} 8$ |
| :--- | :--- |
| $3 \mathbf{N g} 4$ |  |

Again preventing 3...Nf6 and also stopping 3...Nh6, due to 4 Ne 5 (not $4 \mathrm{~N} \times \mathrm{h} 6$ ? stalemate) and 5 Nf 7 mate.

| $\mathbf{3}$ | Kh6 |
| :--- | :--- |
| $\mathbf{4}$ Kf7 | Kh7 |

With the White king on f 7 Black is restricted to oscillating with his king while White can roam freely with his knight. An obvious plan is to try and answer ...Kh8 with Nf 8 (or ...Kh7 with Ng 6 ), when Black would lose his knight. Unfortunately the tempi are wrong for these plans and so White must lose a move. He cannot do so just by moving the knight, so somehow he must employ the king. At the moment White can only play Kf8 and then Kf7 again, because he must prevent $\ldots \mathrm{Kg} 7$, and so losing a move is impossible. Therefore he must cover g 7 with his knight so as to free the king. But with the knight on 55 White's king is left with the responsibility of stopping ...Nf6 and so can only move from f 7 to e6 and back again. It follows that e 8 is the best square for the knight, when the king has only the single duty of preventing ...Ne7. This can be done from 17, e6, d6 or d 7 and White can lose a tempo by Ke6-d6-d7-e6, all the time covering e7.

| 5 Ne5 | Kh8 |
| ---: | ---: |
| 6 Ne4 | Kh7 |
| 7 Nd6 | Kh8 |
| 8 Ne8 | Kh7 |
| 9 Ke6 | Kh8 |
| 10 Kd6 | Kh7 |
| 11 Kd7 | Kh8 |
| 12 Ke6 | Kh7 |
| 13 Kf7 | Kh8 |

Now a knight tour to $f 8$ forces the win of a piece.

| 14 Nc7 | Kh7 |
| :--- | :--- |
| 15 Ne6 | Kh8 |
| 16 | Nf8 |

and wins.


Schlechter-Walbrodt, Vienna 1889

Black is suffering from his bad bishop, and indeed with Black to move he would lose at once, as a bishop move allows $\mathrm{N} \times \mathrm{c} 6$ while a king move allows Kg 5 . But as in the previous examples, it is far from easy to lose a tempo. Indeed, in this position it is necessary to introduce diverse ideas such as attacking the h-pawn with the knight and even penetrating to g 8 with the N ! The best way to analyse the position is to employ the method of corresponding squares, normally used in king and pawn endings, but applicable here because Black's bishop is immobilised and White's knight is already on its optimum square, so both sides will be moving mainly their kings.

Suppose White plays $1 \mathrm{Kf3}$. Black must stop Nf7-d6 so he is restricted to $1 \ldots$ Ke6, $1 \ldots \mathrm{Kg} 7$ or $1 \ldots \mathrm{Ke} 7$. If $1 \ldots \mathrm{Ke} 62 \mathrm{Nd} 3$ ! (threatening $3 \mathrm{Nf} 4+$ ) $\mathrm{Kff}(2 \ldots \mathrm{Kf5}$ still drops the h-pawn to 3 Nf 4 , while $2 \ldots$ Ke7 3 Kf4 Kf6 4 Ne5 puts Black in zugzwang) 3 Ke3! Kf5 (3...B moves 4 Ne 5 Bc 85 Kf 4 , while $3 . . \mathrm{K}$ moves 4 Kf 4 Kf 65 Ne 5 is the
same) $4 \mathrm{Nf} 4 \mathrm{Kg} 45 \mathrm{Ng} 6 \mathrm{Kg} 3(5 \ldots \mathrm{Be} 66 \mathrm{Ne} 5+\mathrm{K} \times \mathrm{h} 47 \mathrm{~N} \times \mathrm{c} 6 \mathrm{Kg} 38$ Ne7 h4 9 c6 h3 $10 \mathrm{c} \times \mathrm{b} 7$ wins easily) 6 Ne 7 Bd 77 Ng 8 ! $\mathrm{K} \times \mathrm{h} 4$ (7... Bh3 8 Nf 6 Bg 49 Ne 8 and 10 Nd 6 ) $8 \mathrm{Kf} 4 \mathrm{Kh} 39 \mathrm{Nf} 6 \mathrm{Bg} 410 \mathrm{~N} \times \mathrm{h} 5$ ! $\mathrm{B} \times \mathrm{h} 511 \mathrm{Ke5}$, and when White promotes Black's pawn is only on the sixth rank. Moving on to the second continuation, $1 \ldots \mathrm{Kg} 7$ loses to 2 Ke 3 Kff (Black must prevent Nf7, remember) $3 \mathrm{Kf4}$ with zugzwang. So if White's king is on f3, Black's king must be on e7 (with White to move), or else Black loses immediately. We say that f3 and e7 correspond. Suppose now that White starts with 1 Ke 3 . Where must Black put his king? If 1 ...Kf5 then 2 Kf 3 Ke6 ( $2 \ldots \mathrm{~K} 163 \mathrm{Kf4}$ ) 3 Nd3! transposes to the above win, while if $1 \ldots \mathrm{Ke} 7(1 \ldots \mathrm{Kg} 72 \mathrm{Kf} 3 \mathrm{Kf6} 3$ Kf4) 2 Kf 3 Ke6 3 Nd 3 amounts to the same thing. So Black can only play $1 \ldots$ Ke6. Thus e3 and e6 correspond. Similar reasoning applies after 1 Kg 3 , so g 3 and e6 also correspond. Now suppose the White king is on f 2 . White can play 1 Ke 3 or 1 Kf 3 , to which Black's replies must be $1 . .$. Ke6 and $1 .$. Ke7 respectively; so with the White king on f2, Black's only hope is to have his king on a square adjacent to both e6 and e7. There is only one such, namely f6. But by the same reasoning, not only does f2 correspond to f 6 , but so do e 2 and g 2 as well. Now we can see the winning plan. White has only to retreat his king to e2, say, forcing Black to reply ...Kf6 and then White plays Kf 2 , forcing Black to abandon the correspondence.

| $1 \mathbf{K f 3}$ | Ke7 |
| :--- | :--- | :--- |
| $2 \mathrm{Ke2!}$ | Kf6 |
| 3 Kf2! |  |

and now 3..Ke7 4 Kf 3 Ke 65 Nd 3 or 3...Ke6 4 Ke 3 Ke 75 Kf 3 transposes into one of the above lines.

The following study, which has an exceptionally natural position, was the result of Benko's analysis of one of his games.

P. Benko, 1st Pr., Magyar Sakkelet 1967

Corresponding squares play a part in this study also, but the play is less elaborate than in the last example. White's position looks desperate, and indeed if Black could transfer his king to f 3 he would win, even if he lost the pawn in the process. But after 1 Bd6, say, 1 ... Kg 4 can be answered by 2 Kg 2 with a draw, e.g. $2 \ldots \mathrm{Ra} 63 \mathrm{Bc} 5$ or $2 \ldots \mathrm{f} 1=\mathrm{Q}+3 \mathrm{~K} \times \mathrm{f} 1 \mathrm{Kf} 34 \mathrm{Kg} 1$ (or 4 Ke 1 ), and the White king is in the 'right' corner. However, if Black could get his rook behind the pawn White's king would be immobilised and he could not prevent ...Kg4-f3 winning. So 1 Bd 6 ? is bad because of $1 \ldots \mathrm{Ra}$ ! 2 Bc 5 (2 $\mathrm{Be} 5 \mathrm{Ra} 53 \mathrm{Bc} 7 \mathrm{Rf} 54 \mathrm{Bb} 8 \mathrm{Kg} 45 \mathrm{Ba} 7 \mathrm{Kf} 36 \mathrm{~B} \times \mathrm{f} 2 \mathrm{Rb} 5$ and wins) Kg 3 ! $3 \mathrm{~B} \times \mathrm{f} 2+\mathrm{Kf} 34 \mathrm{Bd} 4$ (or else $. . \mathrm{Ra}+$ + wins) Rd6, picking up the bishop. By the same reasoning 1 Be 5 ? loses to $1 \ldots \mathrm{Ra} 5$, while 1 Bf 4 ? fails to $1 \ldots \mathrm{Kg} 4$. The stalemate tricks 1 Bg 3 and 1 Bh 2 just lose the bishop if Black checks before taking it. So the right move must be . . .

## 1 Bc7! $\quad \mathbf{R b} 2$

Now $1 \ldots \mathrm{Ra} 7$ only draws, since 2 Bb 6 attacks the rook and after it moves away White plays $3 \mathrm{~B} \times \mathrm{f} 2$. White must always put his bishop where it can attack the rook and the f-pawn if Black attacks the bishop from the side. This explains the following moves:

| 2 | Bd6 | Rc2 |
| :--- | :--- | :--- |
| 3 | Be5 | Rd2 |
| 4 | Bf4 |  |

Attacking the rook, so Black has no time for ...Kg4. It is clear that the following pairs of squares correspond: a 2 and $\mathrm{c} 7, \mathrm{~b} 2$ and $\mathrm{d} 6, \mathrm{c} 2$ and $\mathrm{e} 5, \mathrm{~d} 2$ and $\mathrm{f4}$. Black has a last try:

What now? If $5 \mathrm{Bc} 7(5 \mathrm{Bg} 3 \mathrm{~K} \times \mathrm{g} 3$ or 5 Bd 6 Rb 2 !) then Black seizes the correspondence by $5 \ldots \mathrm{Ra} 2$ ! and after 6 Bb 8 ( 6 Bd 6 Ra 6 or 6 Be 5 Ra5) Ra8 7 Bd6 Ra6 8 Bc 5 Ra 59 Bd 4 Kg 3 ! Black wins. So White must move to a square not in the above list, to be ready to take the correspondence wherever Black moves along the second rank.

## 5 Bb8!

So we may add e 2 and b 8 to the list! But now why not $5 \ldots \mathrm{Re} 8$ and $6 \ldots$ Rf8, the manoeuvre we have been trying to prevent all along?
${ }_{6} \mathbf{B g} 3!\quad \quad . . \mathrm{Re} 8!$

Only possible because the rook is on the e-file. Not 6 Bd 6 ? Rd8! 7 Be 7 Rd 78 Bc 5 Kg 3 and wins.
${ }_{7}^{6} \mathrm{~K} \times \mathrm{f} 2 \quad \quad \ldots \mathrm{Kg} 4$
and draws. White avoids $7 \mathrm{~B} \times f 2$ ? Kf 3 and Black wins.

In the final position in this chapter we see an amusing situation in which White uses zugzwang in order to force the capture of one of his own pawns!

95
w


Tataiev-Gubnicki, USSR 1972
Although White has a great advantage, to actually win the game he must capture Black's c-pawn. It seems to be easy to achieve this in view of Black's cramped position.

## 1 f 6

If White had seen Black's defence in advance, he would have played 1 $\mathrm{g} 8=\mathrm{Q}+!\mathrm{K} \times \mathrm{g} 82 \mathrm{Ke} 7$ followed by 3 f 6 , transposing to the position after White's 6 th move in the game.

$$
1 \quad . . \mathrm{Kg} 8
$$

Forced. Now why not simply 2 Ke6 (or Ke7) Bh5 3 Kd7? Because of $3 \ldots \mathrm{Be} 8+!$ and Black saves the pawn. In view of this trick it is hard to see how White can make progress and we can quickly discover that the only hope is to force Black to move his king and then sacrifice the $g$-pawn to destroy the stalemate. Triangulation is called for to give the move to Black, when the king will have to cmerge.

| 2 Ke6! | Bh5 |
| :--- | :--- |
| 3 Kd7 | Be8+ |
| 4 Kd6 | Kf7 |

Forced by zugzwang.

| $5 \mathrm{~g} 8=\mathrm{Q}+!$ | $\mathrm{K} \times \mathrm{g} 8$ |
| :--- | :--- |
| 6 Ke 7 | Bh5 |
| 7 Kd 7 | Kf7 |
| $8 \mathrm{~K} \times \mathrm{c} 6$ | Be 2 |

The best chance. It is hopeless for Black to take the h-pawn and challenge White to a race, so he must try and block White's passed
pawns with his king. If White obtained a passed b-pawn this would be impossible, but Black does have enough time to get in front of the nearer d-pawn. However, this is not enough to save the game.

| $9 \mathrm{~K} \times \mathrm{d} 5$ | $\mathrm{~K} \times \mathrm{f} 6$ |
| :--- | :--- |
| 10 cb | $\mathrm{Ke7}$ |

Or $10 \ldots \mathrm{Kg} 611 \mathrm{Ke} 6 \mathrm{~K} \times \mathrm{h} 612 \mathrm{Ke} 7 \mathrm{Kg} 513 \mathrm{~d} 5 \mathrm{Bf} 3$ (or else d6 and d7) 14 c 7 Bg 415 d 6 and wins casily.

## $11 \mathrm{Kc5}$ Kd8

$\mathbf{1 2 ~ d 5 ~ K c 7 ~} 13$ d6+Kc8 14 Kb6 Kd8 15 d7 (threatening $16 \mathrm{c} 7+\mathrm{K} \times \mathrm{d} 7$ $17 \mathrm{~Kb} 7 \mathrm{~B}[3+18 \mathrm{~Kb} 8$ promoting, so Black has to abandon the bpawn) $\mathbf{B g} 416 \mathrm{~K} \times$ b5 and Black resigned in view of the plan Kc 5 , b5 and b6.

## 8 Perpetual check

A certain minimum quantity of material is required to deliver perpetual check, so this is not a frequent event in endgames. All the examples in this chapter have either the queen or the rook as the piece actually giving the perpetual, as is to be expected. The first two positions show White falling into a trap.


Foldi-Erdy, Hungary 1974
Black is losing, since the a-pawn interferes with his attempt to give perpetual check after $1 \ldots \mathrm{Qb} 6+2 \mathrm{Kc} 8 \mathrm{Qc} 6+3 \mathrm{Kd} 8 \mathrm{Qa} 8+4 \mathrm{Kc} 7$, so he plays for a trap.

| 1 | O. Qb6+ |
| :--- | :--- |
| $2 \mathbf{K c 8}$ | Qc6+ |
| $\mathbf{3}$ Kd8 | Kg7 |

By taking the $\mathrm{f8}$ square away from White's king, this introduces a threat which White overlooks. White could win now by 4 Qe5+ f6 (4...Kg8 $5 \mathrm{Ke} 7 \mathrm{Qb} 76 \mathrm{Qg} 5+\mathrm{Kh} 87 \mathrm{Qf} 6+$ and mate in two more moves) $5 \mathrm{Qd} 5 \mathrm{Qb} 6+6 \mathrm{Ke} 8$ and the pawn promotes.

$$
4 \mathrm{e} 5 ?
$$

Intending 5 Qf6+. 4 Ke 8 ? would fail in the same way as 4 e 5 ?.

| $\mathbf{4}$ |
| :--- |
| $\mathbf{5 e 8} \quad \ldots \mathrm{Qb6}+$ |

$5 \mathrm{Kc} 8 \mathrm{Qc} 6+6 \mathrm{~Kb} 8 \mathrm{Qb} 5+7 \mathrm{Ka} 8 \mathrm{Qd} 5+8 \mathrm{~K} \times \mathrm{a} 7 \mathrm{Qa} 5+9 \mathrm{~Kb} 7 \mathrm{Qb} 5+$
$10 \mathrm{Kc} 7 \mathrm{Qa} 5+11 \mathrm{Kc} 6 \mathrm{Qa} 6+12 \mathrm{Kd} 5 \mathrm{Qd} 3+$ is also perpetual check.

in view of perpetual check from the squares b8, b5 and e5.


Matulovic-Siaperas, Athens 1969
White has a winning position, and after 1 h 5 b 42 a 4 ( $2 \mathrm{a} \times \mathrm{b} 4$ would also win) b3 $3 \mathrm{Rg} 3 \mathrm{Rb} 1+4 \mathrm{Kh} 2 \mathrm{~b} 25 \mathrm{Rb} 3 \mathrm{Ra} 16 \mathrm{R} \times \mathrm{b} 2 \mathrm{R} \times \mathrm{a} 47 \mathrm{Kh} 3$, the advance of the kingside pawns would quickly decide the game. But Matulovic decides on a different plan, which leads to an unpleasant surprise.

| $1 \mathrm{h5}$ | $\mathrm{b4}$ |
| :--- | :--- |
| $2 \mathrm{h6}$ ? | $\mathrm{b} \times \mathrm{a3}$ |
| $3 \mathrm{h7}$ | a 2 |
| $4 \mathrm{h8}=\mathrm{Q}$ | $\mathrm{al}=\mathrm{Q}+$ |
| 5 Kh 2 |  |

White assumed that as Black has no checks the completely naked Black king would quickly succumb to the onslaught of White's major pieces. The flaw in the logic is that Black in fact does have a check, indeed an infinite number of them.

$$
5 \quad \ldots \mathrm{R} \times \mathrm{g} 2+!
$$

Unexpectedly exploiting the pin along the long diagonal.

$$
6 \mathrm{~K} \times \mathrm{g} 2 \quad \mathrm{Qb} 2+
$$

and after many more moves the players agreed to a draw. One possible line is $7 \mathrm{Kf} 3 \mathrm{Qc} 3+8 \mathrm{Ke} 4 \mathrm{Qc} 4+9 \mathrm{Kf5} \mathrm{Qd} 5+10 \mathrm{Kg} 4 \mathrm{Qd} 4+$ 11 Kg 5 Qe5 + 12 Kg 6 Qe6 $+13 \mathrm{Kh} 7 \mathrm{Qh} 3+18 \mathrm{Kg} 8 \mathrm{Oc} 8+$ with a clear perpetual. As long as Black is careful to check along the long diagonal when the White king is on the h -file (to prevent the rook from
interposing), he can hardly go wrong.
It is well known that queen and knight co-operate well together in an attack and the following position provides another example of this rule.


Parma-Bukic, Yugoslavia Ch. 1978

$$
1 f 7 \quad Q \times f 7
$$

Parma claimed in Informator that Black could have won by $1 \ldots$ Ka8 but then:
(A) 2 a5? $\mathrm{Q} \times \mathrm{f} 73 \mathrm{Q} \times \mathrm{g} 3 \mathrm{~h} 1=\mathrm{Q} 4 \mathrm{Q} \times \mathrm{e} 5$ (with the twin threats of $\mathrm{Qh} 8+-\mathrm{d} 4+$ and $\mathrm{Nb} 6+-\mathrm{c} 8+$, with perpetual check in both cases) Qg 8 ! $5 \mathrm{Nb} 6+$ (or $5 \mathrm{Nc} 7+\mathrm{Ka} 76 \mathrm{Qc} 5+\mathrm{Kb} 87 \mathrm{~N} \times \mathrm{a} 6+\mathrm{b} \times \mathrm{a} 68 \mathrm{Qb} 6+\mathrm{Qb} 7$ and wins) Ka7 6 Qc7 ( 6 Qc5 Qhg1 defends) Qh3 and Black wins.
(B) $2 \mathrm{Q} \times \mathrm{g} 3$ ? $\mathrm{h} 1=\mathrm{Q} 3 \mathrm{Qg} 8+\mathrm{Ka} 74 \mathrm{f} 8=\mathrm{Q} \mathrm{Qfb} 1+5 \mathrm{Ka} 3 \mathrm{Qa} 1+6 \mathrm{~Kb} 4$ (or $6 \mathrm{~Kb} 3 \mathrm{Qhd1}+$ with similar play) $\mathrm{Q} \times \mathrm{b} 2+7 \mathrm{Kc} 5 \mathrm{Qa} 3+8 \mathrm{Nb} 4 \mathrm{Qc} 6$ mate.
(C) 2 Qh 3 ! $\mathrm{Q} \times \mathrm{f} 7($ after $2 \ldots \mathrm{Q} \times \mathrm{h} 33 \mathrm{f} 8=\mathrm{Q}+\mathrm{Ka} 74 \mathrm{Qc} 5+\mathrm{Kb} 85$ Qd6+ Ka8 6 Qf8 + White gives perpetual check) 3 Qc8 + Ka7 4 Qc5 + b6 (or $4 \ldots \mathrm{~Kb} 85 \mathrm{Qd} 6+\mathrm{Ka} 86 \mathrm{Qd} 8+\mathrm{Ka} 77$ Qb6 + with another draw) $5 \mathrm{Q} \times \mathrm{b} 6+\mathrm{Ka} 86 \mathrm{Q} \times \mathrm{a} 6+\mathrm{Kb} 87 \mathrm{Qb} 6+\mathrm{Kc} 88 \mathrm{Qc} 6+\mathrm{Kd} 89$ Qd6 + , and if Black attempts to avoid the perpetual check by $9 \ldots$ Ke 8 , then $10 \mathrm{Nf} 6+\mathrm{Q} \times f 611 \mathrm{Q} \times f 6 \mathrm{hl}=\mathrm{Q} \quad 12 \mathrm{Qg} 6+$ and $13 \mathrm{Q} \times \mathrm{g} 3$ gives White the advantage.

$$
\begin{array}{ll}
2 \mathrm{Q} \times \mathrm{g} 3 & \mathrm{~h} 1=\mathrm{Q} \\
3 \mathrm{Q} \times \mathrm{e} 5+ & \mathrm{Ka} 7
\end{array}
$$

Black cannot avoid the draw, for example 3...Kc8 $4 \mathrm{Nb} 6+\mathrm{Kd} 85$ Qd6 $+\mathrm{Ke} 86 \mathrm{Nd5}$ ! and after both $6 \ldots \mathrm{Qf} 87 \mathrm{Qb} 8+\mathrm{Kf7} 8 \mathrm{Q} \times \mathrm{b} 7+$ followed by a knight check and $6 \ldots \mathrm{Qg} 77 \mathrm{Nc} 7+$ Black loses one of his queens.



Mukhin-Makarychev, USSR 1975
The position of the White king is rather unusual, but this does not mean that Black is likely to deliver mate, since his bishop can play no part in attacking the White king. In fact Black's main asset is his advanced b-pawn and this forces White to seek immediate counterplay.

| 1 Rc 7 | Qb 6 |
| :--- | :--- |
| $2 \mathrm{Q} \times \mathrm{b} 6$ | $\mathrm{a} \times \mathrm{b} 6$ |

White's position now appears very difficult, since 3 Rel? Be4 allows the b-pawn to promote. His only chance is an attack on Black's king.

| 3 Ke7! | b2 |
| :--- | :--- | :--- |
| 4 Rc8+ | Kh7 |
| $5 \mathrm{Kf7}$ | bl $=$ Q |

Black has nothing better. After 5...Bc6 (5...Bf3 $6 \mathrm{Rg} 8 \mathrm{Bl} 5+7 \mathrm{Kf8}$ draws) $6 \mathrm{Rg} 8 \mathrm{Be} 8+7 \mathrm{R} \times \mathrm{e} 8$ ! ( 7 Kf 8 is unwise, owing to $7 \ldots \mathrm{Kg} 6$ and the king slips out of the net) $\mathrm{bl}=\mathrm{Q} 8 \mathrm{Rg} 8$, with unavoidable perpetual.

$$
6 \operatorname{Rg} 8 \quad \frac{1-\frac{1}{2}}{}
$$

as Black's huge material plus is of no help in preventing perpetual check by $\mathrm{R} \times \mathrm{g} 7+$.

A similar last-minute rescue is performed by Black's rook in the next game.


Savon-Kogan, USSR 1971
...Rh1!
Black gives his rook ample room to check the White king. 1...Ral? 2 a7 Kd4 allows White to expose the Black king to a fatal check by $3 \mathrm{~g} 5!\mathrm{f} \times \mathrm{g} 54 \mathrm{c} 5$ !

| 2 a7 | Kd4 |  |
| :--- | :--- | :--- |
| 3 | Rd8 |  |

The best square, as in some variations the White rook can halt the checks by interposing down the d -file.
$\mathbf{3}$ Kd1 $\quad$...Rh2+

After 4 Kc 1 Black can transpose to the game by $4 \ldots \mathrm{Ke} 3!5 \mathrm{R} \times \mathrm{d} 6 \mathrm{Ra} 2$, but not $4 \ldots \mathrm{Rhl}+$ ? $5 \mathrm{Kd} 2 \mathrm{Rh} 2+6 \mathrm{Kel} \mathrm{Ke} 37 \mathrm{Kf1} \mathrm{Kf} 38 \mathrm{Kgl} \mathrm{Rb} 2$, as given in Informator, because of $9 \mathrm{a} 8=\mathrm{Q}$ and the king hides at h 3 .

## 4

...Ke3!
White's reply is forced.

| $5 \mathbf{R} \times \mathrm{d} 6$ | $\mathrm{Rh} 1+$ |
| :--- | :--- |
| $6 \mathbf{K c 2}$ | Rh2+ |
| $7 \mathbf{K c l}$ | Ra2! |

7...Rhl +8 Rd1 Rh8 leaves the rook passively placed and allows White to win by $9 \mathrm{e} 5 \mathrm{f} \times \mathrm{e} 510 \mathrm{~g} 5 \mathrm{ctc}$.

## 8 Kbl

Or $8 \mathrm{R} \times \mathrm{f} 6$ ( $8 \mathrm{Rd} 7 \mathrm{~K} \times \mathrm{e} 4$ draws, as the White king is bottled up on the first two ranks - if White tries marching over to the kingside Black plays...Ra2t at a suitable moment to force White on to the first rank) $\mathrm{R} \times \mathrm{a} 79 \mathrm{e} 5 \mathrm{Ral}+10 \mathrm{Kc} 2 \mathrm{Rgl}$ (renewing the perpetual threat) $11 \mathrm{Rd} 6 \mathrm{R} \times \mathrm{g} 412$ e6 Re4 and White can make no progress.
$8 \ldots \mathrm{R} \times \mathrm{a} 7$ was also a comfortable draw.

## $\frac{1}{2}-\frac{1}{2}$

After $9 \mathrm{R} \times \mathrm{f} 6 \mathrm{R} \times \mathrm{a} 710 \mathrm{e} 5$ (the loss of a tempo with respect to $8 \ldots$ $\mathrm{R} \times \mathrm{a} 7$ doesn't make much difference) Rg 711 e6 $\mathrm{R} \times \mathrm{g} 412$ e7 Re4 13 Rf1 Ke2 14 Rf 7 Kd 3 (threatening perpetual check) $15 \mathrm{Rf} 3+\mathrm{Ke} 216$ Rf7 with a draw by repetition.

We end this chapter with a study based on the idea of avoiding perpetual check.


## A. Herbstman, 1st Pr.,

Akhalgazrda Komunisti 1954
White's f-pawn will become a queen ultimately, but first White must deal with the a-pawn. $99 \%$ of all chess-players would probably go $1 \mathrm{~K} \times \mathrm{a} 2$ without a second thought, but this allows $1 \ldots \mathrm{f}$ !, which covers the square e4 and so enables Black te threaten perpetual along the 5 th rank. The only move to stop this is 2 Ra 7 , when Black replies $2 \ldots$ Re5! and White has no way to avoid the second perpetual check up and down the e-file ( $3 \mathrm{Re} 7 \mathrm{Ra}+$ ).

$$
1 \mathrm{~Kb} 2!!\quad \text { al }=\mathbf{Q}+
$$

Or $1 \ldots \mathrm{f} 5$ ( $1 \ldots \mathrm{Rb} 5+2 \mathrm{Kal!}$ and $1 \ldots \mathrm{Rd} 2+2 \mathrm{Kal}$ lose quickly) 2 Ra 7 ( $2 \mathrm{f} 8=\mathrm{Q}$ ? $\mathrm{a} 1=\mathrm{Q}+$ draws) Re5 $3 \mathrm{R} \times \mathrm{a} 2$, lining up against the Black king and White wins.

$$
2 \mathrm{~K} \times \mathrm{a} 1 \quad \mathrm{Ra} 5+
$$

This only delays Black's fate. 'The basic idea is seen in the line $2 \ldots$ f5 3 Ra7 Re5 $4 \mathrm{Ra} 2+$ ! and Black's king must give up control of el or e 3 , when there is no perpetual after $5 \mathrm{f} 8=\mathrm{Q}$.

$$
3 \mathbf{K b 2} \quad \mathbf{R b 5}+
$$

$3 \ldots \operatorname{Ra} 84 \operatorname{Re} 7 \operatorname{Rf} 85 \mathrm{~d} 7$ is hopeless.
4 Kc 3
Re5+
5 Kd4
f5

Black's last chance to play this move, for otherwise the king sneaks out via e4.

## 6 Ra 7 !

The only move to stop the threatened perpetual.
6 ...Rd5+
White must play to the a-file to escape the checks, but only Kal avoids the other perpetual after the reply ...Re5. So the shortest solution is

| $7 \mathbf{K c 3}$ | Re5+ |
| :--- | :--- |
| $8 \mathbf{K b 2}$ | Rb5+ |
| $9 \mathbf{K a 1}$ | Re5 |
| $10 \mathrm{Ra} 2+$ |  |

followed by $11 \mathrm{f} 8=\mathrm{Q}$ and wins.

## 9 Passed pawns

Most of the positions in this book contain passed pawns, so to have a special chapter devoted to them might seem superfluous. However, there are a few interesting positions which don't fall into any other category and which have as their theme the battle of pieces against pawns. So these have found their way into Chapter 9. There are some more examples of this theme in the following chapter, but the most complex are here. I have found greater difficulty in analysing positions with pieces against pawns than with any other type of ending. Often a small finesse can turn the result of a variation upside down and the analyst has to go back to the beginning again! But I hope that I have arrived somewhere near the truth.


Makarov-Umanski, Kharkov 1958
Black's king is well placed for supporting the pawns, but his other pieces are badly immobilised. White threatens $2 \mathrm{R} \times \mathrm{b} 6 \mathrm{R} \times \mathrm{b} 63 \mathrm{~h} 7$ $\mathrm{Rb} 2+4 \mathrm{Kg} 3 \mathrm{Rb} 85 \mathrm{Bg} 8$ and the h-pawn promotes, so Black must act quickly.

$$
1 \text {. ..Rc7! }
$$

If $1 \ldots$ Kf4 2 Bd 5 ! $\mathrm{N} \times \mathrm{d} 5(2 \ldots \mathrm{Re} 73 \mathrm{R} \times \mathrm{e} 4+$ wins) $3 \mathrm{R} \times \mathrm{b} 7 \mathrm{e} 3+\mathrm{Kf1}$ f2 ( $4 \ldots \mathrm{e} 2+5 \mathrm{Kf} 2) 5 \mathrm{~h} 7 \mathrm{Kf} 36 \mathrm{Rb} 3$ and White wins.

$$
2 \mathrm{R} \times \text { b6 } \quad \mathrm{Kf4}
$$

Clearly best. $2 \ldots \mathrm{Rc} 2+3 \mathrm{Kg} 3 \mathrm{Rg} 2+4 \mathrm{Kh} 3$ leads nowhere.

## 3 Rbl

The alternative was $3 \mathrm{Rb} 4 \mathrm{Rc} 2+$ and now:
(A) 4 Ke1 f2+? 5 Kf1 Kf3 6 Rc 4 ! (if $6 \mathrm{Rb} 3+\mathrm{e} 37 \mathrm{Bd} 5+\mathrm{Kf4}$, then White must avoid $8 \mathrm{Rb} 4+\mathrm{Kg} 3$ or $8 \mathrm{Bg} 2 \mathrm{Rcl}+9 \mathrm{Ke} 2 \mathrm{Rel}+10 \mathrm{Kd} 3$ e 2 and play $8 \mathrm{Kg} 2 \mathrm{Rc} 19 \mathrm{Rb} 4+\mathrm{K} \times \mathrm{f} 510 \mathrm{Bc} 4$, with a draw) Rb2 7 $\mathrm{Rc} 3+\mathrm{e} 38 \mathrm{Bd} 5+\mathrm{Kf} 49 \mathrm{Bc} 4$ and White has winning chances.
(B) 4 Kel Kg 3 ! $5 \mathrm{R} \times \mathrm{e} 4$ ! ( 5 Rb 3 ? Kg 2 and Black wins) $\mathrm{f} 2+6 \mathrm{Kd1}$ $\mathrm{f} 1=\mathrm{Q}+$ (Black cannot play for a win, e.g. $6 \ldots$..Rc5 7 Ke 2 and Black must repeat by $7 \ldots \mathrm{Rc} 2+$ or $6 \ldots \mathrm{Rb} 2$ ? 7 Bc 4 ) $7 \mathrm{~K} \times \mathrm{c} 2$ with a draw.
(C) 4 Kfl and Black should force a draw by $4 \ldots \mathrm{Rcl}+$ or $4 \ldots$ Rh2 (4...Kg3 $5 \mathrm{R} \times \mathrm{e} 4 \mathrm{Rh} 26 \mathrm{Kel}$ transposes) 5 Kel ! Rh1 + (if $5 \ldots \mathrm{Kg} 36$ $\mathrm{R} \times \mathrm{e} 4$ or $5 \ldots \mathrm{f} 2+6 \mathrm{Ke} 2$, then White wins) $6 \mathrm{Kf} 2 \mathrm{Rh} 2+7 \mathrm{Ke} 1(7 \mathrm{Kgl}$ ? Kg 3 ), with perpetual check.
3 Kel $\quad$...Re2+

The best move, as $4 \mathrm{Kf1}(4 \mathrm{Kgl} \mathrm{Rg} 2+5 \mathrm{Khl} \mathrm{Kg} 3$, threatening $6 \ldots$ Rh2+ and 7...f2+, wins for Black) e3 5 Bd 5 ( 5 h 7 Rh 26 Kg 1 Kg 3 wins) $\mathrm{Rh} 26 \mathrm{Kg} 1 \mathrm{R} \times \mathrm{h} 67 \mathrm{~B} \times f 3 \mathrm{~K} \times f 38 \mathrm{Rb} 3$ offers Black very good winning chances.


This move enables the bishop to come back to g 4 in some lines and is much better than 5 Bd 5 ? $\mathrm{f} 2+6 \mathrm{Kf1} \mathrm{Kg} 3$ and wins.

## 5

. Kg 3
Other moves also lead to a draw:
(A) $5 \ldots \mathrm{f} 2+6 \mathrm{Kfl} \mathrm{Kg} 37 \mathrm{Bg} 4!\mathrm{K} \times \mathrm{g} 48 \mathrm{Kg} 2 \mathrm{Rc} 79$ Rh1 Rh7 10 f 7 $\mathrm{R} \times \mathrm{f} 711 \mathrm{~h} 7 \mathrm{e} 2(11 \ldots \mathrm{fl}=\mathrm{Q}+12 \mathrm{R} \times \mathrm{fl} \mathrm{R} \times \mathrm{h} 7$ doesn't change the result) $12 \mathrm{Rh} 4+\mathrm{Kg} 513 \mathrm{Rh} 5+\mathrm{Kg} 614 \mathrm{Rh} 6+$ with perpetual check, since if Black ventures to the $f$-file White wins by $\mathrm{K} \times \mathrm{f} 2$.
(B) $5 \ldots \mathrm{Rh} 26 \mathrm{Bc} 4$ ! $(6 \mathrm{Kd} 1$ ? RhI $+7 \mathrm{Kc} 2 \mathrm{R} \times \mathrm{b} 1$ wins, as White must waste time recapturing the rook to prevent ...Rb8) Rh1 +7 Bf 1 e 2 8 Kd 2 ( 8 Kf 2 loses to $8 \ldots \mathrm{Rh} 2+9 \mathrm{Kg} 1 \mathrm{e} 1=\mathrm{Q} 10 \mathrm{R} \times \mathrm{e} 1 \mathrm{f} 2+11 \mathrm{~K} \times \mathrm{h} 2$ $\mathrm{f} \times \mathrm{e} \mathrm{l}=\mathrm{Q}) \mathrm{e} \times \mathrm{f} 1=\mathrm{Q}(8 \ldots \mathrm{R} \times \mathrm{h} 69 \mathrm{~B} \times \mathrm{e} 2$ is an easy draw, while $8 \ldots$ $\mathrm{R} \times \mathrm{f} 19 \mathrm{f} 7$ is certainly not favourable for Black) $9 \mathrm{R} \times \mathrm{f} 1 \mathrm{R} \times \mathrm{h} 6$ (of course, not $9 \ldots \mathrm{R} \times \mathrm{fl} 10 \mathrm{f} 7$ ) 10 f7 $\mathrm{Rf} 611 \mathrm{Ra} \mathrm{R} \times \mathrm{f} 712 \mathrm{Kel} \mathrm{Kg} 3$ ( $12 \ldots \mathrm{Rh} 7$ is also answered by 13 Ra 8 ) 13 Ra 8 (not 13 Kfl ? Rh7 and Black wins) $\mathrm{Rg} 714 \mathrm{Kf1}$ and draws.

6 Kd1 Rd2+
Not $6 \ldots \mathrm{Rh} 27 \mathrm{f} 7 \mathrm{e} 2+8 \mathrm{Kd} 2$.
$7 \mathrm{Kcl} \quad$ Rd8

After $7 \ldots \mathrm{f} 2$ ? $8 \mathrm{Bc} 4 \mathrm{e} 29 \mathrm{~K} \times \mathrm{d} 2$ White surprisingly stops the pawns.
8 Kc2 e2

Threatening ...f2, but it would have been a mistake to play $8 \ldots \mathrm{f} 2$ first, as $9 \mathrm{Bc} 4 \mathrm{Rc} 810 \mathrm{Kd} 3 \mathrm{R} \times \mathrm{c} 411 \mathrm{f} 7 \mathrm{Rc} 8$ (11...Rf4 12 h 7 ) $12 \mathrm{~K} \times \mathrm{e} 3$ Rf8 13 h 7 leaves White winning.


Not $11 \mathrm{~K} \times \mathrm{c} 4$ ? f2 $12 \mathrm{~h} 7 \mathrm{f} 1=\mathrm{Q}$ and Black wins, but White could have drawn more easily by 11 f 7 ! Rc8 ( $11 \ldots$ Rf4 12 h 7 ) 12 Ke 3 (to prevent $\ldots \mathrm{Kf} 2) \mathrm{Kg} 213 \mathrm{~h} 7$, reaching a position in which neither side can attempt to win.

$$
11 \text {...Kh2 }
$$

11... $\mathrm{Kf} 212 \mathrm{~K} \times \mathrm{c} 4 \mathrm{~K} \times \mathrm{g} 1$ transposes to the game.

$$
12 \mathrm{~K} \times \mathrm{c} 4 \quad \mathrm{~K} \times \mathrm{g} 1
$$

Black could have caused more problems with 12...f2! although 13 h7 ( 13 f 7 ? $\mathrm{f} 1=\mathrm{Q}$ ) $\mathrm{f} 1=\mathrm{Q}$ (the alternatives $13 \ldots \mathrm{~K} \times \mathrm{g} 114 \mathrm{~h} 8=\mathrm{Q} \mathrm{e} 1=\mathrm{Q} 15$ $\mathrm{Qg} 7+\mathrm{Kf1} 16 \mathrm{f} 7$ and $13 \ldots \mathrm{f} \times \mathrm{g} 1=\mathrm{Q} 14 \mathrm{~h} 8=\mathrm{Q}+\mathrm{Kg} 215 \mathrm{Og} 7+\mathrm{Kfl} 16$ $\mathrm{Q} \times \mathrm{gl}+\mathrm{K} \times \mathrm{g} 117 \mathrm{f} 7$ also lead to draws) $14 \mathrm{~h} 8=\mathrm{Q}+\mathrm{K} \times \mathrm{gl} 15 \mathrm{Qg} 7+$ $\mathrm{Kf} 2(15 \ldots \mathrm{Qg} 216 \mathrm{Q} \times \mathrm{g} 2+) 16 \mathrm{Qa} 7+\mathrm{Kf} 317 \mathrm{Qb} 7+\mathrm{K} f 4$ (the only way Black can make progress is to capture the White pawn, so as to allow the interposition of his queen) 18 Qc7 + Kf5 19 Qd7 $+\mathrm{K} \times 6620$ Qd8+ Kf5 21 Qf8 $+\mathrm{Kg4}$ (it is interesting to compare this ending with that arising in the game Estrin-Pytel from Chapter 10) 22 Qg7+ Kf3 23 Qf6 $+\mathrm{Kg} 224 \mathrm{Qg} 5+\mathrm{Kh} 2(24 \ldots \mathrm{Kf} 225 \mathrm{Qf} 4+\mathrm{Ke} 126 \mathrm{Qc} 1+) 25 \mathrm{Qh} 4+$ Qh3 26 Of2 $+\mathrm{Qg} 227 \mathrm{Qh} 4+\mathrm{Kg} 128$ Qel + leads, nevertheless, to a draw.

$$
13 \mathrm{f} 7 \quad \mathrm{el}=\mathrm{Q}
$$

13...f2 $14 \mathrm{f} 8=\mathrm{Q} \mathrm{f1}=\mathrm{Q} 15 \mathrm{Qg} 7+\mathrm{Kh} 116 \mathrm{Qb7}+$ is similar to the last note.

$$
14 \mathrm{f} 8=\mathrm{Q} \quad \mathrm{f} 2
$$

$14 \ldots \mathrm{Qe} 4+15 \mathrm{Kc} 3 \mathrm{f} 216 \mathrm{Qg} 7+\mathrm{Khl} 17 \mathrm{~h} 7$ is another line leading to a draw.

$$
15 \mathrm{Qg} 7+
$$

15...Kf1 16 h 7 or $15 \ldots$ Kh1 16 Qb7+ are both draws.

The next position was analysed in various publications and resulted in a notable difference of opinion.


Malulovic-Dueball, Vratsa 1975

$$
1 \quad \ldots \mathrm{~K} \times \mathrm{f} 3 \text { ? }
$$

Dueball, analysing in Informator, gave this move two question marks whereas Barcza, analysing in The Chess Player, gave it two exclamation marks. Who was right? Dueball's 'winning' line, $1 \ldots \mathrm{Bd} 4$, also leads to a draw, so the move should not affect the result of the game. However, Black is definitely fighting for the draw after $1 \ldots \mathrm{~K} \times \mathrm{f} 3$ ? so I think that one question mark is about right! After $1 \ldots \mathrm{Bd} 42 \mathrm{R} \times \mathrm{f} 5+$ Ke3 3 Kd 5 ! (White must prevent the advance of the ch-pawn) there are various moves:
(A) $3 \ldots \mathrm{e} 6+4 \mathrm{~K} \times \mathrm{e} 6 \mathrm{c} 45 \mathrm{Kd} 5 \mathrm{c} 36 \mathrm{Rh} 5 \mathrm{c} 27 \mathrm{Rh} 1 \mathrm{Bb} 2$ (White threatens Rc1, so Black must move his bishop and if 7 ...Bc5 then 8 Kc 6 Kd 2 $9 \mathrm{f} 4 \mathrm{c} 1=\mathrm{Q} 10 \mathrm{R} \times \mathrm{c} 1 \mathrm{~K} \times \mathrm{cl} 11 \mathrm{f} 5 \mathrm{~Kb} 212$ f6 Ka3 13 f7 draws) 8 Kc 6 and captures the last pawn.
(B) $3 \ldots \mathrm{Kd} 34 \mathrm{Rf} 4 \mathrm{e} 5$ (4...Be3 $5 \mathrm{Re} 4 \mathrm{~b} 56 \mathrm{R} \times \mathrm{e} 3+\mathrm{K} \times \mathrm{e} 37 \mathrm{~K} \times \mathrm{c} 5$ $\mathrm{K} \times \mathrm{f} 38 \mathrm{~K} \times \mathrm{b} 5$ e5 9 a 4 and both sides promote) 5 Rh 4 ( 5 Re 4 is also good) $\mathrm{c} 46 \mathrm{f} 4 \mathrm{e} 47 \mathrm{f} 5 \mathrm{c} 38 \mathrm{R} \times \mathrm{e} 4 \mathrm{Be} 39 \mathrm{f} 6 \mathrm{c} 210 \mathrm{Rc} 4 \mathrm{c} 1=\mathrm{Q} 11 \mathrm{R} \times \mathrm{cl}$ $\mathrm{B} \times \mathrm{c} 112 \mathrm{f} 7 \mathrm{Ba} 313 \mathrm{Kc} 6$, with again an easy draw.
(C) $3 \ldots$..b5 4 Rf 7 (the simplest move) e5 5 Rb 7 c 4 (5...b4 $6 \mathrm{a} 3 \mathrm{~b} \times \mathrm{a} 3$ $7 \mathrm{Rb} 3+$ and $8 \mathrm{R} \times \mathrm{a} 3$ draws) $6 \mathrm{a} 4 \mathrm{~b} \times \mathrm{a} 4$ ( $6 \ldots \mathrm{c} 37 \mathrm{a} \times \mathrm{b} 5$ is simple) 7 $\mathrm{K} \times \mathrm{c} 4 \mathrm{~K} \times \mathrm{f} 38 \mathrm{~Kb} 4$, followed by the elimination of every Black pawn. (The above lines are based on an analysis by A. Becker in Deutsche Schachzeitung.)

## $2 \mathbf{R d} 3+\quad \mathbf{K g} \mathbf{2}$ !

From now on Dueball plays very accurately to hold the game. The alternative line $2 \ldots \mathrm{Ke} 2$ ? ( $2 \ldots \mathrm{Ke} 4$ ? $3 \mathrm{R} \times \mathrm{c} 3 \mathrm{f} 44 \mathrm{Rc} 4+\mathrm{Kc} 35 \mathrm{Ke} 5 \mathrm{f} 3$ $6 \mathrm{Rc} 3+\mathrm{Ke} 27 \mathrm{Ke} 4$ transposes to the analysis of $2 \ldots \mathrm{Ke} 2) 3 \mathrm{R} \times \mathrm{c} 3 \mathrm{f} 4$ (3...Kd2 $4 \mathrm{Rb} 3 \mathrm{c} 45 \mathrm{R} \times \mathrm{b} 6 \mathrm{f} 46 \mathrm{Kd} 5 \mathrm{c} 37 \mathrm{Ke} 4 \mathrm{c} 28 \mathrm{Rc} 6 \mathrm{c} 59 \mathrm{a} 4 \mathrm{cl}=\mathrm{Q}$ $10 \mathrm{R} \times \mathrm{c} 1 \mathrm{~K} \times \mathrm{c} 111$ a5 Kd2 12 a6 Ke2 13 a7 f. $314 \mathrm{a} 8=\mathrm{Q}$ f2 $15 \mathrm{Qa} 6+$ Kel 16 Ke 3 , with a win for White) $4 \mathrm{Ke} 5 \mathrm{f} 35 \mathrm{Ke} 4 \mathrm{f} 26 \mathrm{Rc} 2+\mathrm{Ke} 1$ $7 \mathrm{Ke} 3 \mathrm{f} 1=\mathrm{N}+8 \mathrm{Kd} 3 \mathrm{Ng} 3$ (to prevent $9 \mathrm{Re} 2+-$ ) 9 Rb 2 and White's outside a-pawn will be decisive, as none of the Black pieces are in a reasonable position to stop it. The bad position of Black's king in this line persuades Dueball to put it out of harm's way on g 2 .

| $\mathbf{3} \mathrm{R} \times \mathrm{c} 3$ | $\mathbf{f 4}$ |
| :--- | :--- |
| $\mathbf{4} \mathbf{R c 2 +}$ | $\mathbf{K g 1}!$ |

4...Kg3? wastes time, as the king must return in order to promote the f-pawn, so White wins after $5 \mathrm{Rb} 2 \mathrm{f} 36 \mathrm{R} \times \mathrm{b} 6 \mathrm{f} 27 \mathrm{Rb} 1 \mathrm{c} 48 \mathrm{Kd} 5$ c3 9 Kd 4 c 210 Rc 1 Kg 2 (or else White just pushes his a-pawn) 11 $\mathrm{R} \times \mathrm{c} 2 \mathrm{Kg} 112 \mathrm{R} \times \mathrm{f} 2$, promoting the pawn.

## $5 \mathrm{Rcl}+$

$5 \mathrm{Rb} 2 \mathrm{f} 36 \mathrm{R} \times \mathrm{b} 6 \mathrm{f} 27 \mathrm{Rb} 1+\mathrm{f} 1=\mathrm{Q} 8 \mathrm{R} \times \mathrm{f} 1+\mathrm{K} \times \mathrm{f} 19 \mathrm{Kd} 5 \mathrm{Ke} 210 \mathrm{a} 4$ $\mathrm{Kd} 311 \mathrm{~K} \times \mathrm{c} 5$ (or else $11 \ldots \mathrm{c} 4$ ) e5 only leads to a drawn position.

| 5 | $\ldots \mathrm{Kg} 2$ |
| :--- | :---: |
| $6 \mathrm{Kd5}$ | f 3 |
| 7 Kc 6 | f 2 |
| $8 \mathrm{~K} \times \mathrm{b} 6$ | e 5 |

8..f1=Q $9 \mathrm{R} \times \mathrm{f} 1 \mathrm{~K} \times \mathrm{f} 110 \mathrm{~K} \times \mathrm{c} 5$ is winning for White, but Black could have drawn more comfortably by 8 ...c4! 9 Kc 5 (not now $9 .$. c3? 10 Kc 4 e5 $11 \mathrm{~K} \times \mathrm{c} 3 \mathrm{Kf} 312 \mathrm{Rb} 1$ ! e4 13 Rb 8 Ke 214 Rf 8 e 315 Kd 4 Kd2 16 a 4 or $11 \ldots$ e4 12 Kd 4 Kf 313 Rc 8 , and in both cases White wins) e5! $10 \mathrm{~K} \times \mathrm{c} 4 \mathrm{Kf} 311 \mathrm{a} 4$ (there is no choice, the idea of playing the rook to the eighth being impossible as the Black pawn promotes with check) e4 12 a5 e3 13 a6 e2 14 a7 el $=Q 15 \mathrm{a} 8=\mathrm{Q}+\mathrm{Qe} 4+16$ $\mathrm{Q} \times \mathrm{e} 4+\mathrm{K} \times \mathrm{e} 4$, followed by $\ldots \mathrm{Ke} 3-\mathrm{e} 2$.

## $9 \mathrm{~K} \times \mathrm{c} 5 \quad$ Kf3!

As above, 9...e4? loses to $10 \mathrm{Kd} 4 \mathrm{Kf} 311 \mathrm{Rc} 8 \mathrm{e} 312 \mathrm{Rf} 8+\mathrm{Ke} 213 \mathrm{a} 4$.

## 10 a 4

10 Rb 1 is pointless, as $10 \ldots \mathrm{e} 411 \mathrm{Rb} 8 \mathrm{e} 312 \mathrm{Rf} 8+\mathrm{Kg} 4$ even wins for Black.

| 10 | $\ldots . e 4$ |
| :--- | ---: |
| $11 \mathrm{a5}$ | e 3 |
| 12 ab | e 2 |


| $13 \mathrm{a7}$ |
| :--- |
| $14 \mathrm{a} 8=\mathrm{Q}+$ |$\quad \mathrm{el}=\mathrm{Q}$

Although White can give a lot of checks it is impossible for him to make any real progress and the game concluded $14 \ldots \mathrm{Kg} 315 \mathrm{Qg} 8+$ Kh2 16 Qh7 + Kg3 17 Qg6+Kf3 18 Qf5 +Kg 319 Qg5 $+\mathrm{Kf3} 20$ Qd5 + Kg3 21 Qd3+ Kg2 22 Qd5+ (even $22 \mathrm{Rc} 2 \mathrm{Qa5}+23 \mathrm{Kc} 6 \mathrm{Oa} 4+$ and $24 \ldots \mathrm{Q} \times \mathrm{c} 2$ is a draw) $\mathbf{K g} 3 \mathbf{2 3} \mathbf{Q g} 5+\mathbf{K f} \mathbf{3} \mathbf{2 4} \mathbf{Q h 5}+\mathbf{K g} 3 \frac{1}{2}-\frac{1}{2}$.

Black's wayward knight on g2 is largely responsible for his defeat in the following position.


Gufeld-Smyslov, USSR 1975

## $1 \mathrm{c5}$ !

Preparing a further sacrifice. After $1 \mathrm{~b} 6 \mathrm{a} \times \mathrm{b} 62 \mathrm{a} \times \mathrm{b} 6 \mathrm{Ne} 4+(2 \ldots$ $\mathrm{R} \times \mathrm{c} 43 \mathrm{~b} 7 \mathrm{R} \times \mathrm{c} 64 \mathrm{~b} 8=\mathrm{Q} \mathrm{K} \times \mathrm{e} 75 \mathrm{Qa} 7+$ offers White good winning chances after $5 \ldots \mathrm{Ke} 86 \mathrm{Q} \times \mathfrak{\mathrm { Rg }} 27 \mathrm{Kd} 3) 3 \mathrm{Ke} 2(3 \mathrm{Kc1} \mathrm{Nd} 6$ is also a clear-cut draw) Nc5 White loses his c-pawn and any winning chances.

| $\mathbf{1}_{2}$ | R $\times$ e4 |
| :--- | ---: |
| 3 b6 | Re4+ |
| R $\times$ e 4 |  |

Threatening $4 b \times a 7$ Re8 5 Nb8.

$$
3 \quad \text {...Re8 }
$$

After 3...a $\times$ b6 $4 \mathrm{c} \times \mathrm{b} 6 \mathrm{Ne} 35$ b7 Re8 6 a6 Nc4 +7 Kd 3 Nd 68 b8 $=\mathrm{Q}$ $\mathrm{R} \times \mathrm{b} 89 \mathrm{~N} \times \mathrm{b} 8 \mathrm{Nc} 8$, White reaches a winning knight ending and finishes Black off by $10 \mathrm{Kc} 4 \mathrm{Ke} 711 \mathrm{Kc} 5 \mathrm{Kd} 812 \mathrm{Kc} 6 \mathrm{Ne} 7+13 \mathrm{~Kb} 7$ $\mathrm{Nc} 814 \mathrm{Nc} 6+\mathrm{Kd} 715 \mathrm{Ne} 5+\mathrm{Kd} 816 \mathrm{~Kb} 8$ (zugzwang) Nb6 17 a 7 Na 8 (17...Ke7/e8 L8 Kb7) 18 Kb7 Nc7 19 Nc 4 Na 8 (19...Kd7 $20 \mathrm{Nb} 6+$ and both $20 \ldots \mathrm{Kd} 821 \mathrm{Kc} 6$ and $20 \ldots \mathrm{Kd} 621 \mathrm{Nd} 5$ ! win for White) 20 Nb6 Nc7 21 Kc6 and White wins.
$4 \mathrm{~b} \times \mathrm{a} 7 \mathrm{Ra} 8$ and $4 \mathrm{~b} 7 \mathrm{Ke} 65 \mathrm{~b} 8=\mathrm{Q} \mathrm{R} \times \mathrm{b} 86 \mathrm{~N} \times \mathrm{b} 8 \mathrm{Kd} 5$ offer White no winning chances.

4 ...Ne3
Or $4 \ldots$ Ke6 5 b7 Kd7 6 a6 Kc7 ( $6 \ldots \mathrm{Ne} 37 \mathrm{Nc} 8$ ! when $7 \ldots \mathrm{R} \times \mathrm{c} 88$ a7 and $7 \ldots$ Kc7 8 Nd6 followed by 9 a7 are winning for White) $7 \mathrm{Nb} 5+$ Kc6 8 Nd 6 Rd 89 a7 $\mathrm{R} \times \mathrm{d} 6+10 \mathrm{c} \times \mathrm{d} 6 \mathrm{~K} \times \mathrm{b} 711 \mathrm{~d} 7$ and White promotes.

## 5 a6 $\quad$ Ne4+

The critical line is $5 \ldots \mathrm{Ke} 6$ ( $5 \ldots \mathrm{Ke} 5$ is also answered by 6 Nc 8 !) 6 Nc 8 ! ( $6 \mathrm{~K} \times \mathrm{e} 3$ ? Kd5 + is a draw after both $7 \mathrm{Kf4} \mathrm{~K} \times \mathrm{c} 58$ b7 Kb6 9 $\mathrm{Nc} 8+\mathrm{Kc} 710 \mathrm{Nd} 6 \mathrm{R} 88+11 \mathrm{Ke} 5 \mathrm{~Kb} 612 \mathrm{Nc} 8+\mathrm{Kc} 713 \mathrm{Nd} 6$ and 7 Kd 3 $\mathrm{K} \times \mathrm{c} 58 \mathrm{~b} 7 \mathrm{~Kb} 69 \mathrm{Nc} 8+\mathrm{Kc} 7$, as 10 Nd 6 fails to $10 . . \mathrm{Rd} 8$ ) $\mathrm{Nc} 4+$ (6...Kd7 7 a 7 wins) $7 \mathrm{Kc} 3 \mathrm{~N} \times \mathrm{b} 6$ (or $7 \ldots$...Na5 8 b7 Nc6 9 a7 $\mathrm{N} \times \mathrm{a} 710$ $\mathrm{b} 8=\mathrm{Q} \mathrm{N} \times \mathrm{c} 811 \mathrm{Qc} 7$ with a winning position, while $7 \ldots \mathrm{R} \times \mathrm{c} 88 \mathrm{~K} \times \mathrm{c} 4$ wins at once) $8 \mathrm{~N} \times \mathrm{b} 6$ (threatening a7) Re79 Kc4 Ra7 10 Kb 5 Rc 7 $11 \mathrm{c} 6 \mathrm{Kd} 612 \mathrm{Nc} 4+\mathrm{Kd} 51.3 \mathrm{Na} 5$, followed by Kb6 and a7, when White wins.

| 6 Kc 3 | Ne5 |
| :--- | :--- |
| 7 b 7 | Ke6 |
| 8 c 6 | Kd5 |

Or 8 ...Kd6 $9 \mathrm{Nc} 8+$ and 10 a7.

$$
9 \mathrm{c} 7
$$

1-0

To end the chapter, a simple position, Only a couple of accurate moves are necessary to force the draw in the following ending.


Parma-Gligoric, Bled 1961
White's b-pawn cannot be defended, so he has only one winning attempt:

## $1 \mathrm{~N} \times \mathrm{a}^{5}$ !

Now if $1 \ldots \mathrm{~B} \times \mathrm{a} 52$ b4 Bc7 3 a5 Kb3 4 a6 Bh2 (4...Bb8 5 b5 Ka4 6 b6 wins) 5 Kc6 Bg1 6 b5 Ka4 7 b6 White wins.

## 1 <br> ...Kb2!

White is curiously immobilised. After 2 Kb 5 Ka 33 Kb 6 Kb 44 Ka 6 Be 1 or 2 Kb 6 Ka 33 Kb 5 Be 14 Kb 6 Kb 4 White can move absolutely nothing, while 2 b4 Ka3 drops a pawn immediately. Instead White decides to cover the pawn on b3, so as to threaten to move the knight.
2 Kc 4
B $\times$ a 5 !

Now this is possible.

| $3 \mathrm{b4}$ | Bb6 |
| :--- | :--- |
| $4 \mathrm{a5}$ | Bf2 |
| 5 ab |  |

5 b 5 Ka 36 b 6 Ka 47 b 7 Ba 7 also leads to a draw.

| 5 |  | ..Ba7 |
| :---: | :---: | :---: |
| $6 \mathrm{Kb5}$ |  | Kc3 |
| $7 \mathrm{Ka4}$ |  | Bb6 |
|  | $\frac{1}{2}-\frac{1}{2}$ |  |

## 10 Rook endings

When collecting positions for this book I discovered that a surprisingly large percentage of them were rook endings. Whether this is because rook endings are the most common type of ending in practice or because rook endings are more often tactical than other endings is hard to say; probably both factors are relevant. Rook endings are notoriously difficult to play and the positions in this chapter bear out this opinion, since most of them were inaccurately played.

First there are some positions in which one side has a rook and the other doesn't. Naturally there must be some compensation in the way of passed pawns for the other player, the number varying between two and five (!).


Milenkovic-Siankov, Yugoslavia 1970

$$
1 \quad \text {...Re6 }
$$

A spectacular winning move, but as an objective annotator I should point out that more mundane methods were also effective, e.g. $1 \ldots$ Rc1 $2 \mathrm{~b} 6 \mathrm{Rb} 13 \mathrm{~b} 7+(3 \mathrm{Ka} 7 \mathrm{~g} 54 \mathrm{~h} 4 \mathrm{~g} \times \mathrm{h} 45 \mathrm{f} 4$, attempting to force stalemate by 6 f5 and $7 \mathrm{~b} 7+\mathrm{Kc} 78 \mathrm{~b} 8=\mathrm{Q}+$, fails to $5 \ldots \mathrm{R} \times \mathrm{b} 66 \mathrm{~K} \times \mathrm{b} 6$ Kb 8 ) Kc7 4 h 4 g 55 h 5 (White is trying to exhaust his tempi on the kingside and then force stalemate by playing a7) Rb6! 6 Ka 7 h 67 f 4 g4 8 f5 $\mathrm{R} \times \mathrm{ab}^{6}+9 \mathrm{~K} \times \mathrm{a} 6 \mathrm{~Kb} 8$ winning.

$$
2 \mathrm{~b} \times \mathrm{c} 6
$$

Black threatened 2...Rb6 and if 2 Ka 7 Kc 7 , forcing $3 \mathrm{~b} \times \mathrm{c} 6$ (or else
...Rb6), when it takes White longer to set up a stalemate on the queenside.

$$
2 \quad \text {...g5! }
$$

Fixing White's pawns. The only hope for White is to set up stalemate by a7 and c 7 .

| 3 a7 | f5 |
| :--- | :--- |
| 4 c7 |  |

Or 4 h 4 g 45 h 5 g 3 winning, as White is one tempo short.

| 4 | ...f4 |
| :---: | :---: |
| $5 \mathrm{h4}$ | g4 |
| $6 \mathrm{h5}$ | h6 |

and Black mates in four more moves.

A. Petrosian-Tsheshkoosky, USSR 1976

White played the natural 1 Kf5 and the players agreed to a draw. But Black could have won in the final position! However, the process is by no means simple.

$$
1 \text { Kf5 b3! }
$$

The superficially tempting move is $1 \ldots c 2$ ?, but then White draws by $2 \mathrm{Rd} 8+\mathrm{Kc} 43 \mathrm{Ke} 4 \mathrm{Kc} 3$ (3...b3 $4 \mathrm{Rc} 8+\mathrm{Kb} 45 \mathrm{Kd} 3 \mathrm{Ka} 36 \mathrm{R} \times \mathrm{c} 2$ offers fewer chances) $4 \mathrm{Rc} 8+\mathrm{Kd} 2(4 \ldots \mathrm{~Kb} 25 \mathrm{Kd} 3 \mathrm{~b} 36 \mathrm{Kd} 2$ is also drawn) $5 \mathrm{Rd} 8+\mathrm{Ke} 2$ (or $5 \ldots \mathrm{Kc} 16 \mathrm{Kd} 3 \mathrm{~b} 37 \mathrm{Rc} 8 \mathrm{Kd} 18 \mathrm{Rh} 8$ with a draw after both $8 \ldots \mathrm{Kc1}$ and $8 \ldots \mathrm{c} 1=\mathrm{N}+$ ) 6 Rc 8 b 37 Rc 3 ! (the only move to draw) $\mathrm{Kd} 28 \mathrm{Rd} 3+\mathrm{Ke} 29 \mathrm{Re} 3+\mathrm{Kf} 210 \mathrm{Rf} 3+\mathrm{Kg} 1$ (10...Kg2 11 Rc 3 , followed by 12 Kd 3 and $13 \mathrm{R} \times \mathrm{c} 2$ draws) $11 \mathrm{Rg} 3+$ and so on.

$$
2 \text { Rd8+ Kc5! }
$$

Not $2 \ldots \mathrm{Kc} 4$ ? 3 Ke 4 b 2 (3...c2 transposes to the last note) $4 \mathrm{Rc} 8+$
$\mathrm{Kb} 35 \mathrm{Rb} 8+\mathrm{Kc} 26 \mathrm{Kd} 4$ with an easy draw.
3 Rc8+
Both $3 \mathrm{Ke} 4 \mathrm{~b} 24 \mathrm{Rc} 8+\mathrm{Kd} 65 \mathrm{Rb} 8 \mathrm{c} 2$ and 3 Ke 5 c 2 win for Black.

| 3 | $\ldots \mathrm{Kd} 4$ |
| :--- | ---: |
| 4 Rd8 + | Ke 3 |
| $\mathbf{5} \mathbf{R b 8}$ |  |

If $5 \mathrm{Re} 8+(5 \mathrm{Rc} 8 \mathrm{c} 2$ is hopeless) $\mathrm{Kd} 26 \mathrm{Rd} 8+\mathrm{Kc} 17 \mathrm{Rd} 3 \mathrm{Kc} 2$ and Black wins. White's 5 Rb 8 is only possible because of the bad position of Black's king; but Black had no choice, since $4 \ldots$.. Kc4 would have transposed to the note to Black's second move.

$$
\begin{aligned}
& 5 \\
& 6 \mathrm{Ke5}
\end{aligned}
$$

If $6 \mathrm{Rb} 3 \mathrm{Kd} 47 \mathrm{Rb} 4+\mathrm{Kc} 5$ and wins. After 6 Ke 5 Black faces the problem of playing ...c2. This is only possible when the Black king is on the first rank, but attempting to retreat immediately fails, for example $6 \ldots \mathrm{Kd} 2$ ? 7 Kd 4 or $6 \ldots \mathrm{Ke} 2$ ? 7 Kd 4 . Black must first lure the White king to the right, so that when Black plays his king to the second rank White cannot reply by attacking the c 3 pawn with his king.

Kf3!
$6 \ldots \mathrm{Kd} 37 \mathrm{Kd} 5$ still wins, but only if, Black repeats by $7 \ldots \mathrm{Ke} 3$. Now, however, the threat is $7 \ldots \mathrm{c} 28 \mathrm{Rb} 3+\mathrm{Kg} 4$ ", so the White king must oppose.

7 Kf5 Ke2!

Attempting to repeat the trick by $7 \ldots \mathrm{Kg} 3$ ? is unwise, due to 8 Rb 3 ! Kh4 (8...Kf2 9 Ke 4 Ke 210 Kd 4 Kd 211 Kc 4 is zugzwang) $9 \mathrm{Rb} 4+$ Kh5 $10 \mathrm{Rb} 8 \mathrm{Kh} 611 \mathrm{Kf6} \mathrm{Kh} 712 \mathrm{Rb} 7+$ with a draw.

| $8 \mathrm{Ke4}$ | Kd1 |
| ---: | :--- |
| $9 \mathrm{Kd3}$ | c 2 |
| $10 \mathrm{Rh8}$ | $\mathrm{c} 1=\mathrm{N}+$ ! |

and $11 \ldots \mathrm{bl}=\mathrm{Q}$ winning.
The next position also sees the side with pawns forced to manoeuvre cleverly in order to win.


Kasimov-Komay, Israel 1979

First let's look at the game continuation: 1 ...h2?

Although Black advances both pawns to the seventh rank easily enough it is hard for him to bring the king up to support them, since White can sometimes capture one pawn and at the same time pin the other.

| 2 Rh1! | f2 |
| :--- | :--- |
| 3 Ke6 | Ke5 |

and after $4 \mathrm{Kc} 5 \mathrm{~K} \times \mathrm{e} 45 \mathrm{Kc} 4 \mathrm{Ke} 3$ (this makes no difference-Black has to go to f3 next move) $\mathbf{6} \mathbf{K c} 3 \mathbf{~ K f 3}$ ( $6 \ldots \mathrm{Ke} 27 \mathrm{R} \times \mathrm{h} 2$ ) $7 \mathbf{K d} \mathbf{~ K g} \mathbf{~ K}$ 8 Ke 2 the players agreed to a draw.

Another bad idea is $1 \ldots \mathrm{f} 2$ ? 2 Rf1! (White must force the other pawn to the seventh, since 2 Rhl ? Kc5 transposes to the note to Black's first move in the line below) h2 $3 \mathrm{Kc} 6 \mathrm{Ke} 54 \mathrm{Kc} 5 \mathrm{~K} \times \mathrm{e} 45 \mathrm{Kc} 4$ $\mathrm{Ke} 3(5 \ldots \mathrm{Kf} 36 \mathrm{Kd} 3 \mathrm{Kg} 27 \mathrm{Ke} 2$ is also drawn) 6 Rh 1 ! Kf 37 Kd 3 , with the same position as in the last line. The correct plan is to bring the king up first and to retain the option of pushing either pawn to the seventh.

$$
1 \text {...Ke5! }
$$

Now moves with the rook lose, for example 2 Rh1 f2 $3 \mathrm{Kch}(3 \mathrm{Rf} 1$ h2 $4 \mathrm{Kc} 6 \mathrm{~K} \times \mathrm{e} 45 \mathrm{Kc} 5 \mathrm{Kf} 3$ and $6 . . \mathrm{Kg} 2$ wins) $\mathrm{K} \times \mathrm{e} 44 \mathrm{Kc} 5 \mathrm{Kf} 3$ ! (intending $5 \ldots \mathrm{Kg} 2$ and $6 \ldots \mathrm{f} 1=\mathrm{Q}$ ) $5 \mathrm{R} \times \mathrm{h} 3+\mathrm{Kg} 2$ winning, or 2 Rf 1 $\mathrm{K} \times \mathrm{e} 4$ (not $2 \ldots \mathrm{~h} 2$ ? 3 Kc 6 ! $\mathrm{K} \times \mathrm{e} 44 \mathrm{Kc} 5 \mathrm{Ke} 35 \mathrm{Kc} 4 \mathrm{Ke} 26 \mathrm{Rh} 1$ or $4 \ldots \mathrm{f} 25 \mathrm{Kc} 4$, with a draw in both cases) 3 Kc 6 , transposing into the main line. So White moves his king.

| $\mathbf{2}$ Kc6 | $K \times e 4$ |  |
| :--- | :--- | :--- |
| 3 | Rf1 |  |

Or $3 \mathrm{Rg} 4+$ ( 3 Kc 5 f 24 Rh 1 Kf 3 wins) Ke5! (not 3...Ke3? 4 Rh4, with a draw) $4 \mathrm{Rg} 1 \mathrm{Kf} 4!5 \mathrm{Kd} 5 \mathrm{f} 26 \mathrm{Rg} 8$ ( 6 Ra 1 Kf 3 and 7...Kg2) Ke 3 $7 \mathrm{Re} 8+\mathrm{Kd} 28 \mathrm{Rf} 8 \mathrm{Ke} 29 \mathrm{Re} 8+\mathrm{Kd1} 10 \mathrm{Rf} 8 \mathrm{~h} 2$ and wins.

$$
3 \text {...Kf4! }
$$

Not 3...h2? 4 Kc 5 , transposing to the note to Black's first move, nor 3...Ke3? 4 Rh1.

## 4 Kc5

If White blocks the d-file by 4 Kd 5 Black wins more easily by $4 \ldots \mathrm{Kg} 3$ $5 \mathrm{Rg} 1+\mathrm{Kh} 26 \mathrm{Rg} 8 \mathrm{f} 27 \mathrm{Rf} 8 \mathrm{Kg} 28 \mathrm{Rg} 8+\mathrm{Kf} 39 \mathrm{Rf} 8+\mathrm{Ke} 210 \mathrm{Re} 8+$ $\mathrm{Kd1}$ ( $10 \ldots \mathrm{Kd} 2$ ? 11 Rf 8 repeats) 11 Rf 8 h 2 , promoting a pawn.

| 4 | ...Kg3 |
| :---: | :---: |
| $5 \mathrm{RgI}+$ | Kh2 |
| 6 Rg 8 | $f 2$ |
| 7 Rf8 | $\mathbf{K g 3 !}$ |

With the king on c5 going across the board fails to win: $7 \ldots \mathrm{Kg} 28$ $\mathrm{Rg} 8+\mathrm{Kf} 39 \mathrm{Rf} 8+\mathrm{Ke} 210 \mathrm{Re} 8+\mathrm{Kd1} 11 \mathrm{Rd} 8+\mathrm{Kcl}(11 \ldots \mathrm{Kc} 212 \mathrm{Rf} 8$ draws at once) 12 Ra 8 ! h2 (the only way to avoid a repetition) 13 $\mathrm{Ra} 1+\mathrm{Kd} 214 \mathrm{Rh} 1$ (threatening $\mathrm{R} \times \mathrm{h} 2$ ) Kc 315 Kd 5 Kd 316 Kc 5 Ke 3 17 Kc 4 Kf 318 Kd 3 with a draw, as in the game continuation. So instead Black goes up the board.

## 8 Rg8+

If 8 Kd 4 the previous plan works, e.g. $8 \ldots \mathrm{Kg} 2!(8 \ldots \mathrm{~h} 2$ ? 9 Ke 3 draws) $9 \mathrm{Rg} 8+\mathrm{Kf} 310 \mathrm{Rf} 8+\mathrm{Ke} 211 \mathrm{Re} 8+\mathrm{Kd} 112 \mathrm{Rf} 8 \mathrm{~h} 2$.

| 8 | $\ldots \mathrm{Kh} 4$ |
| :--- | :--- |
| $9 \mathrm{Rf8}$ |  |

If White keeps checking Black plays ...Kg5-h6-g7.

| 9 | $\ldots \mathrm{~h} 2$ |
| :---: | :---: | :---: |
| $10 \mathrm{Rh} 8+$ |  |
| $11 \mathrm{Rg} 8+$ | Kg 5 |
| $12 \mathrm{Rh} 8+$ | $\mathrm{Kh6}$ |
| Kg 7 |  |

and wins.
The next example contains a number of errors by both players, but as a result, an extraordinary position is arrived at!


Stean-A. Herzog, Greifensee 1972
Both sides were very short of time to reach move 40 , which is move 9 in the score below. White has a passed pawn which cannot be stopped, since the Black king is cut off, so Black's hopes lie entirely with the counterplay offered by his kingside pawn mass.

## 1 Kh 2 !

The best move, forcing Black to sacrifice in order to mobilise his pawns.

$$
1 \quad \ldots g \times f 3!
$$

An extraordinary idea, which just draws in several lines! The alternative was $1 \ldots .$. fl $2 \mathrm{f} \times \mathrm{g} 4 \mathrm{e} 4$, when again it is not easy to see how White can win, e.g. 3 c 5 ( 3 Rd 1 Bd 3 and the Black king can come over to stop the c-pawn) e 34 Kgl Bh 35 Rd 3 ( $5 \ldots \mathrm{f} 3$ was a threat) $\mathrm{B} \times \mathrm{g} 46 \mathrm{c} 6 \mathrm{Kf6} 7 \mathrm{c} 7 \mathrm{Ke} 58 \mathrm{Rd} 8 \mathrm{f} 39 \mathrm{c} 8=\mathrm{O} \mathrm{B} \times \mathrm{c} 810 \mathrm{R} \times \mathrm{c} 8 \mathrm{Kf4}$, with a probable draw. The move Black chose has the merit of being more likely to confuse an opponent in time trouble.

$$
\begin{aligned}
& 2 \mathrm{~K} \times \mathrm{h} 3 \\
& 3 \mathrm{Kg} 4
\end{aligned}
$$

Black also scrapes a draw after $3 \mathrm{Kh} 2 \mathrm{e} 3(3 \ldots \mathrm{~g} 44 \mathrm{Kg} 1 \mathrm{~g} 3$ loses to 5 Rd4, but $4 \ldots \mathrm{e} 3$, transposing, is possible) 4 Kgl c 2 (4...g4 5 Rd 4 c 2 $6 \mathrm{R} \times \mathrm{f} 4+\mathrm{Kg} 67 \mathrm{Kf} 2!\mathrm{g} 3+8 \mathrm{Ke1} \mathrm{~g} 29 \mathrm{Rg} 4+$ transposes, but White should avoid 7 Re4 43 and Black wins- $7 \mathrm{R} \times \mathrm{g} 4+\mathrm{Kf} 58 \mathrm{Kf} 2 \mathrm{~K} \times \mathrm{g} 4$ 9 c 5 is another draw, however) $5 \mathrm{Kf} 2 \mathrm{~g} 46 \mathrm{Rd} 4 \mathrm{~g} 3+7 \mathrm{Kel} \mathrm{g} 28 \mathrm{R} \times \mathrm{f} 4+$ Kg6 $9 \mathrm{Rg} 4+\mathrm{Kf} 510 \mathrm{Rg} 8 \mathrm{Ke} 411 \mathrm{Kf2}$ ( $11 \mathrm{c} 5 \mathrm{Ke} 312 \mathrm{Re} 8+\mathrm{Kd} 313 \mathrm{Kf} 2$ Kd 2 transposes) $\mathrm{Kd} 312 \mathrm{c} 5 \mathrm{Kd} 213 \mathrm{Rd} 8+\mathrm{Kc} 214 \mathrm{Re} 8 \mathrm{Kd} 215 \mathrm{c} 6$ $\mathrm{g} 1=\mathrm{Q}+16 \mathrm{~K} \times \mathrm{g} 1 \mathrm{el}=\mathrm{Q}+17 \mathrm{R} \times \mathrm{e} 1 \mathrm{~K} \times \mathrm{e} 118 \mathrm{c} 7 \mathrm{f} 2+19 \mathrm{Kh} 2 \mathrm{fl}=\mathrm{Q}$ $20 \mathrm{c} 8=\mathrm{Q}$ Of $4+$, when the half-point is not far away.

| 3 | $\quad . . f 2$ |
| :--- | ---: |
| $4 \mathrm{Rd1}$ | e3 |


| $\mathbf{5} \mathrm{Kf} 3$ | $\mathbf{g 4 +}$ |
| :--- | :--- |
| $\mathbf{6} \mathrm{Ke} 2$ | $\mathrm{~g} \mathbf{3}$ |

Black could have set a trap with 6 ...Ke6 7 c5 Ke5, for then 8 c6? loses to $8 \ldots \mathrm{Ke} 49 \mathrm{c} 7 \mathrm{f} 3+10 \mathrm{Kf1g} 3$ mating, while 8 Rf 1 ? intending 8...Ke4 $9 \mathrm{R} \times \mathrm{f} 2 \mathrm{f} 3+10 \mathrm{Ke} 1 \mathrm{e} \times \mathrm{f} 2+11 \mathrm{~K} \times f 2 \mathrm{Kf} 412 \mathrm{c} 6 \mathrm{~g} 3+13 \mathrm{Kf1}$, with a draw, fails as Black plays $10 \ldots \mathrm{~g} 3$ ! in this line and wins. The only good move is 8 Rcl ! when $8 \ldots \mathrm{Kd} 49 \mathrm{Rc} 4+$ is a draw by repetition, while $8 \ldots . . \mathrm{g} 39 \mathrm{Kf} 3$ transposes into what should have been the main line.

## 7 Kf3 <br> Ke6

Not $7 \ldots \mathrm{~g} 28 \mathrm{~K} \times \mathrm{g} 2 \mathrm{e} 29 \mathrm{Rd} 7+\mathrm{Ke} 610 \mathrm{~K} \times \mathrm{f} 2 \mathrm{~K} \times \mathrm{d} 711 \mathrm{~K} \times \mathrm{e} 2$, with a winning king and pawn ending.

## 8 c5

By providing a check on d6 White again prevents ...g2.

## 8 <br> ...a5??

Black sees that $9 \mathrm{c} 6 \mathrm{~g} 210 \mathrm{~K} \times \mathrm{g} 2 \mathrm{e} 211 \mathrm{c} 7$ leads to a draw after $11 \ldots \mathrm{f} 1=\mathrm{Q}+$ or $11 \ldots \mathrm{e} \times \mathrm{d} 1=\mathrm{Q}$, but both players miss the reply 9 Rcl ! $\mathrm{Kd} 5(9 \ldots \mathrm{Kd} 710 \mathrm{c} 6+\mathrm{Kc} 711$ a3 and the advance of the b-pawn decides) 10 c 6 Kd 411 c 7 with an immediate win for White.

$$
9 \text { a3? Ke5 }
$$

The time control had been reached now and we can imagine the players settling down to assess the position. Black could have played $8 \ldots \mathrm{Ke} 5$ ! and arrived at this position without the intervening moves $\ldots \mathrm{a} 5$ and a3. What is the difference? Surprisingly this small change in the position is the difference between a draw and a win for White!

## 10 Rc 1

Black was finally threatening $10 \ldots g 2$ so White was forced to move the rook.

| 10 | $\ldots K d 4$ |
| :--- | ---: |
| 11 c 6 | Kd 3 |



Black in fact resigned at this point (during the adjournment).
$12 \mathrm{c7}$
$13 \mathrm{c8}=\mathrm{Q}$$\quad$ e2
$13 \mathrm{Rc} 3+\mathrm{Kd} 214 \mathrm{Rc} 2+$ is a draw, but White has better.

| 13 | $\ldots \mathrm{fl}=\mathrm{Q}+$ |
| :--- | :--- |
| 14 Kg 4 | $\mathrm{e} 1=\mathrm{Q}$ |

The play has been forced up to here, but now White must choose the most effective check.

## 15 Qc4+

Attepppting to deliver mate by $15 \mathrm{Qd} 7+\mathrm{Ke} 4$ or $15 \mathrm{Qc} 4+\mathrm{Kd} 216$ $\mathrm{Rc} 2+\mathrm{Kd} 1$ gives White nothing, so he just regains his material.

$15 \quad$| $15 \times f 1$ | $\cdots K d 2$ |
| :--- | :--- |
| $Q \times c 1$ |  |

Or 16...Qe6+(16..Q $\times \mathrm{f} 117 \mathrm{R} \times \mathrm{f} 1 \mathrm{Ke} 218 \mathrm{Ra} 1$ wins) $17 \mathrm{~K} \times \mathrm{f} 4 \mathrm{Qf} 7+$ $18 \mathrm{~K} \times \mathrm{g} 3 \mathrm{Qg} 6+19 \mathrm{Kh} 2 \mathrm{Qh} 5+20 \mathrm{Kg} 1 \mathrm{Qg} 4+21 \mathrm{Qg} 2+$, with a winning king and pawn ending.

| $17 \mathrm{Q} \times \mathrm{f4}+$ | Kc 2 |
| :--- | :--- |
| $18 \mathrm{Q} \times \mathrm{c} 1+$ | $\mathrm{K} \times \mathrm{c} 1$ |
| $19 \mathrm{~K} \times \mathrm{g} 3$ |  |

Now we see the significance of the pawn moves on the queenside. If Black had played $8 . . . \mathrm{Kc} 5$ ! he would now draw with $\ldots \mathrm{Kb} 2$, but as it is $19 \ldots \mathrm{~Kb} 2$ loses after $20 \mathrm{~b} 4 \mathrm{a} 421 \mathrm{~b} 5 \mathrm{~K} \times \mathrm{a} 322 \mathrm{~b} 6$ and his pawn is only on the sixth when White promotes.

Black has a record number of passed pawns in the next position.


Bangiev-Zilberman, USSR 1975
Who is better? Black has an army of passed pawns, but White too can promote a pawn. The game finished $\mathbf{1 , . . a 3 ? ?} 2 \mathrm{h5}$ (Black has cunningly immobilised all his pawns) c5 ( $2 \ldots$ a 23 Rel doesn't help) $\mathbf{3} \mathbf{~ h} 6 \mathrm{c} 4+4$ $\mathrm{Kd4} 4$ and Black resigned, since 4...a2 5 Rel c2 ( $5 \ldots \mathrm{~b} 36 \mathrm{~K} \times \mathrm{c} 3 \mathrm{~d} 4+7$ Kb 2 wins as well) $6 \mathrm{~h} \times \mathrm{g} 7 \mathrm{~b} 3$ is too late. This position was analysed by Boleslavsky and Kapengut in The Chess Player and they concluded that Black was better and gave a complicated line ending in a draw. In the original edition of this book I provided some more analysis, but again concluded that the position should be a draw. Since then I have discovered that almost all this analysis is wrong and over the past few years I have been convinced alternately that Black/White is winning. Now I am back to my original conclusion of a draw, but for completely different reasons.
${ }_{2}$ Re2! $\quad$...c5! in

This move is best, even though 2 h 5 also leads to a draw after $2 \ldots \mathrm{c} 4+$ $3 \mathrm{Ke} 2(3 \mathrm{Kd} 4 \mathrm{c} 24 \mathrm{Re} 1 \mathrm{~b} 35 \mathrm{~h} 6 \mathrm{~b} 26 \mathrm{~h} \times \mathrm{g} 7 \mathrm{~b} 1=\mathrm{Q} 7 \mathrm{~g} 8=\mathrm{Q} \mathrm{Q} \times \mathrm{e} 18$ $\mathrm{Q} \times \mathrm{d} 5+$ is a draw) d 4 ! (3...c2 4 Kd 2 d 4 allows 5 Re 1 !) 4 h 6 (4 Re7+ Kc6 $5 \mathrm{~h} 6 \mathrm{~d} 3+6 \mathrm{Kf} 3!\mathrm{c} 27 \mathrm{~h} \times \mathrm{g} 7 \mathrm{~d} 28 \mathrm{~g} 8=\mathrm{Q} \mathrm{d1}=\mathrm{Q}+$ is very unclear, although surely not bad for Black, and the same comment applies to 6 $\mathrm{Kf} 2 \mathrm{c} 27 \mathrm{~h} \times \mathrm{g} 7 \mathrm{cl}=\mathrm{Q} 8 \mathrm{~g} 8=\mathrm{Q}$ Qf4+, although here Black's advantage is a little more concrete, since he picks up the rook in a couple of moves) $\mathrm{c} 2(4 \ldots \mathrm{~d} \times \mathrm{c} 35 \mathrm{~h} \times \mathrm{g} 7 \mathrm{c} 26 \mathrm{~g} 8=\mathrm{Q} \mathrm{cl}=\mathrm{Q}$ allows an immediate draw by perpetual check) $5 \mathrm{Re} 7+\mathrm{Kc} 66 \mathrm{Kd} 2 \mathrm{c} 3+7 \mathrm{~K} \times \mathrm{c} 2 \mathrm{~b} 3+8 \mathrm{Kd} 3$ b2 $9 \operatorname{Rel}$ (not $9 \mathrm{Kc} 2 \mathrm{~d} 3+10 \mathrm{~Kb} 1 \mathrm{a} 3$ winning) a3 $10 \mathrm{~h} \times \mathrm{g} 7 \mathrm{a} 211 \mathrm{~g} 8=\mathrm{Q}$ $\mathrm{b} 1=\mathrm{Q}+12 \mathrm{R} \times \mathrm{b} 1 \mathrm{a} \times \mathrm{b} 1=\mathrm{Q}+13 \mathrm{~K} \times \mathrm{d} 4 \mathrm{c} 2$ and again White gives perpetual check.
After $2 \operatorname{Re} 2$ Black can only save himself by very accurate play. There are two plausible lines, $2 \ldots \mathrm{~d} 4$ and $2 \ldots \mathrm{c} 4+$.
A)
2
...d4?

This move should lose. Once again there are two possibilitics:

## A1)

## 3 h5

This is the obvious move, but now Black can draw.

| 3 | $\ldots b 3$ |
| :--- | :--- |
| $4 \mathrm{h6}$ | b2! |

$4 \ldots \mathrm{c} 4+(4 \ldots \mathrm{c} 2$ ? $5 \mathrm{R} \times \mathrm{c} 2$ wins) is not so clear since after $5 \mathrm{~K} \times \mathrm{d} 4$ ( 5 $\mathrm{K} \times \mathrm{c} 4 \mathrm{c} 2) \mathrm{c} 2(5 \ldots \mathrm{~b} 2 ? 6 \mathrm{~K} \times \mathrm{c} 3 \mathrm{bl}=\mathrm{Q} 7 \mathrm{Rb} 2+$ wins $) 6 \mathrm{~h} \times \mathrm{g} 7 \mathrm{cl}=\mathrm{Q} 7$ $\mathrm{g} 8=\mathrm{Q} \mathrm{Qd} 1+$ (Black can try 7...Qf4+ but the queen and rook control enough squares to make perpetual check impossible; however it inay be that if the king occupies e 6 or e 7 , say, Black can play ...b2 because the rook cannot enter the attack with check) $8 \mathrm{Kc} 5 \mathrm{Q} \times \mathrm{e} 29 \mathrm{Qd} 5+$ White still has winning chances. If Black allows his king to be driven into the corner he loses, for example 9...Ka7 $10 \mathrm{Qd} 7+\mathrm{Ka} 11$ Qc6 + Ka7 $12 \mathrm{Qc} 7+\mathrm{Ka8} 13 \mathrm{~g} 7 \mathrm{Qf} 2+($ or $13 \ldots \mathrm{Qe} 3+14 \mathrm{~Kb} 5 \mathrm{Qg} 5+15 \mathrm{Ka} 6) 14$ Kb5 Qf5 +15 Kb 6 ! Qf2 +16 Ka 6 followed by Qb6. Thus Black should try $9 \ldots \mathrm{Kc} 7$ but even here White has good prospects. Since $4 \ldots \mathrm{~b} 2$ ! is a forced draw it is a much better move.

## $5 \operatorname{Re} 1$

White should avoid $5 \mathrm{Kc} 2 \mathrm{~d} 3+6 \mathrm{~K} \times \mathrm{c} 3 \mathrm{~d} \times \mathrm{e} 2$ and $5 \mathrm{R} \times \mathrm{b} 2+\mathrm{c} \times \mathrm{b} 26 \mathrm{Kc} 2$ a37h×g7d3+.

| 5 | $\ldots \mathrm{a3}$ |
| :--- | :--- |
| $6 \mathrm{~h} \times \mathrm{g} 7$ | a 2 |
| $7 \mathrm{~g} 8=\mathrm{Q}$ | $\mathrm{b}=\mathrm{Q}+$ |
| $8 \mathrm{Kc4}$ |  |

Again White would risk losing if he tried 8 Ke 2 .

$$
8 \quad \ldots Q \times \mathrm{el}
$$

$8 \ldots \mathrm{Ob} 4+9 \mathrm{Kd} 3 \mathrm{Qb} 1+$ is another way to draw.

## 9 Qd5+

with perpetual check since if the king tries to slip away via the e-file White can force it back with Qf7+.

## A2) <br> 3 Rc2!

The manoeuvre $\mathrm{Re} 2-\mathrm{c} 2$ is particularly paradoxical in that the time element would appear to be of paramount importance, and this suggests pushing the h-pawn. However the possibility of sacrificing the rook at c3 slows Black down and White gains more time than he expends with the rook move.

$$
3 \text {...Kc6 }
$$

Or 3...b3 (3...a3 4 Kc 4 leads to the complete blockade of the black
pawns, e.g. $4 \ldots \mathrm{~d} 35 \mathrm{~K} \times \mathrm{d} 3 \mathrm{~b} 36 \mathrm{R} \times \mathrm{c} 3 \mathrm{~b} 27 \mathrm{Kc} 2) 4 \mathrm{R} \times \mathrm{c} 3 \mathrm{~b} 25 \mathrm{Kc} 2 \mathrm{~d} \times \mathrm{c} 3$ 6 h 5 a 37 Kbl and Black's king is too far away from b3.

## 4 h5 Kd5

$4 \ldots \mathrm{~Kb} 55 \mathrm{~h} 6 \mathrm{~b} 36 \mathrm{~h} \times \mathrm{g} 7 \mathrm{~b} 27 \mathrm{~g} 8=\mathrm{Q}$ bl $=\mathrm{Q} 8 \mathrm{Qb} 8+$ wins, as does $4 \ldots \mathrm{a} 3$ $5 \mathrm{~h} 6 \mathrm{~b} 36 \mathrm{R} \times \mathrm{c} 3 \mathrm{~b} 27 \mathrm{Kc} 2 \mathrm{~d} \times \mathrm{c} 38 \mathrm{~Kb} 1$.

## $5 \mathrm{R} \times \mathrm{c} 3$ !

The simplest, although 5 h 6 should also win.

| 5 | $\ldots d \times c 3$ |
| :--- | :--- |
| 6 hb 6 | $\mathrm{c} 4+$ |
| 7 Kc 2 | $\mathrm{Kd4}$ |

In other lines black loses because White promotes with check.

| $\begin{aligned} & 8 \mathbf{h} \times \mathrm{g} 7 \\ & 9 \mathbf{K c 1} \end{aligned}$ |  |
| :---: | :---: |
|  |  |

and Black's counterplay is one tempo too slow.
B)
2
...c4+

With the right follow-up this leads to a draw.

## 3 Kd4 <br> a3

After $3 \ldots \mathrm{c} 24 \mathrm{R} \times \mathrm{c} 2 \mathrm{~b} 3$ (4...a3 5 h5 b3 also transposes) 5 Rc1 Black has nothing better than $5 \ldots$ a3 leading to variation B 1 .

## 4 h5!

The move $4 \mathrm{Kc5}$, recommended by the Russians and by myself, actually loses after 4..c2 (4...b3? 5 Re7+ is a draw after 5...Ka6 6 Re6+, since $5 \ldots \mathrm{~Kb} 8$ ? loses after $6 \mathrm{Kb6} \mathrm{Kc} 8$ ' $7 . \mathrm{Kc} 6 \mathrm{Kd} 88 \mathrm{R} \times \mathrm{g} 7$ followed by 9 $\mathrm{Rd} 7+$ and 10 g 7$) 5 \mathrm{Re} 7+\mathrm{Kc} 8!(5 \ldots \mathrm{Ka}$ ? $6 \mathrm{Kc} 6 \mathrm{cl}=\mathrm{Q} 7 \mathrm{Re} 8 \mathrm{Ka} 78$ $\mathrm{Re} 7+$ is only a draw) 6 Rel ( 6 Kc 6 Kd 8 is no improvement; all it does is to prolong the game by two moves) b37h5 cl=Q! (with this move Black arranges to promote on al instead of bl or cl; 7...b2 $8 \mathrm{~h} 6 \mathrm{~b} 1=\mathrm{Q}$ $9 \mathrm{~h} \times \mathrm{g} 7 \mathrm{Q} \times \mathrm{e} 110 \mathrm{~g} 8=\mathrm{Q}+$ allows White to force perpetual check) 8 $\mathrm{R} \times \mathrm{cl} \mathrm{b} 29 \mathrm{Rf} 1$ (the best chance) a 210 Kc 6 (the plan with h6 no longer operates, because the al queen can check at a7) Kb 8 ! $(10 \ldots \mathrm{Kd} 811 \mathrm{Kd} 6$ Ke8 $12 \mathrm{Re} 1+$ and the king must return to d8 because $12 \ldots \mathrm{Kf8} 13 \mathrm{Kd} 7$ forces mate) $11 \mathrm{Rf} 8+\mathrm{Ka} 712 \mathrm{Rf} 7+\mathrm{Ka} 613 \mathrm{Rf} 8 \mathrm{Ka} 514 \mathrm{Kc} 5 \mathrm{Ka} 4$ and Black wins because the White king cannot move to c4. Now there is a divergence:
B1)
4
...c2?

After 4...a25 R $\times$ a $2 \mathrm{~b} 36 \mathrm{~K} \times \mathrm{c} 3$ (or $6 \mathrm{Ral} \mathrm{c} 27 \mathrm{Kc} 3 \mathrm{~d} 4+8 \mathrm{~Kb} 2 \mathrm{~d} 39 \mathrm{Kc} 3$ $\mathrm{d} 210 \mathrm{~K} \times \mathrm{d} 2 \mathrm{~b} 211 \mathrm{Ra} 7+$ !) $\mathrm{b} \times \mathrm{a} 27 \mathrm{~Kb} 2$ White stops the Black pawns and promotes his own before Black's king can come to the rescue. The
play after $4 \ldots \mathrm{c} 2$ ? is sufficiently interesting to be worth analysing in detail, even though Black has a clear drawing alternative.

| $5 \mathrm{R} \times \mathbf{c} 2$ | b 3 |
| :--- | :--- | :--- |
| 6 Re 1 |  |

All other moves lose, for example $6 \mathrm{Kc} 3 \mathrm{~d} 4+7 \mathrm{Kd} 2 \mathrm{~b} \times \mathrm{c} 28 \mathrm{~K} \times \mathrm{c} 2$ (or 8 h 6 a 2 ) d3+ and Black promotes first.


6
Kc6!
Only a king move keeps Black in the game. The point is that an immediate pawn push loses:

1) $6 \ldots \mathrm{~b} 27 \mathrm{Rb} 1 \mathrm{Kc} 6$ (Black suffered from the unfortunate position of his king on the $b$-file) $8 \mathrm{Kc} 3 \mathrm{~d} 4+$ (if Black plays to win the rook by ...a2 $\mathrm{K} \times \mathrm{b} 2 \mathrm{a} \times \mathrm{b} 1=\mathrm{Q}+$ then he loses because his king is one square too far away from the kingside pawns) $9 \mathrm{Kc} 2 \mathrm{~d} 3+(9 \ldots \mathrm{c} 310 \mathrm{~Kb} 3$ or $9 \ldots \mathrm{Kc} 510$ $\mathrm{h} 6 \mathrm{~Kb} 411 \mathrm{~h} \times \mathrm{g} 7$ wins) 10 Kc 3 d 211 RdI and the pawns are blockaded.
2) $6 \ldots \mathrm{a} 27 \mathrm{Kc} 3 \mathrm{~Kb} 6$ ( $7 \ldots \mathrm{~d} 4+8 \mathrm{~Kb} 2$ wins a pawn) $8 \mathrm{~h} 6 \mathrm{~d} 4+9 \mathrm{~Kb} 2 \mathrm{~Kb} 5$ $10 \mathrm{~h} \times \mathrm{g} 7 \mathrm{~Kb} 411 \mathrm{R} \times \mathrm{c} 4+$ wins.

Therefore Black must move his king. Since ...Kb6 carries no threat he must play ... Kab or ...Kc6, so as to threaten ...b2. Certainly ...Kc6 cannot be worse than ...Ka6 and it has some advantages, namely that the king can move to c5 and Black avoids tactical problems arising because of the rook taking a pawn with check.

## 7 Rh1!!

Probably the only move to win. White must meet the threat of ...b2 and since 7 Kc 3 loses to $7 \ldots \mathrm{~d} 4+$ this means a rook move along the first rank. 7 Rdl ( 7 Rbl ? a 2 and 7 Ral ? b2 are immediate disasters) is tempting, but $7 \ldots \mathrm{~b} 2!8 \mathrm{Kc} 3 \mathrm{~d} 4+9 \mathrm{Kc} 2 \mathrm{c} 3!10 \mathrm{~Kb} 3 \mathrm{a} 211 \mathrm{~K} \times \mathrm{a} 2 \mathrm{c} 2$ wins, revealing that dl is a vulnerable square. It doesn't seem to matter whether White chooses e1, f1, gl or h1 but there is a vital difference, as we shall see.
7..a2 $28 \mathrm{Kc} 3 \mathrm{Kc} 5(8 \ldots \mathrm{~d} 4+9 \mathrm{~Kb} 2 \mathrm{Kc} 510 \mathrm{Ka} 3$ ! holds the pawns up for several moves) 9 Kb 2 (threat Ka 3 ) Kb4 10 Rl 14 ! and White surprisingly blockades the pawns for long enough to win.

$$
8 \mathrm{Kc} 3 \quad \mathrm{~d} 4+
$$

8...Kc59 h6 d4 + transposes.

$$
9 \mathrm{Kc} 2 \quad \text { Kc5 }
$$

9 ...c3 10 Kb 3 and $9 \ldots \mathrm{~d} 3+10 \mathrm{Kc} 3$ lose at once.

| $10 \mathrm{h6}$ | Kb4 |  |
| :--- | :--- | :--- |
| $11 \mathrm{h7}$ ! | $\mathrm{d} 3+$ |  |
| 12 | Kd 2 |  |

Not 12 Kbl ?? Kb3 and White is mated.

$$
12 \mathrm{~K} \times \mathrm{d} 3 \quad \ldots \mathrm{c} 3+
$$

13 Kc 3 ? c2 enables Black to promote with check under more favourable circumstances, since the White king cannot hide from checks if the Black queen appears at cl .

$$
\begin{array}{ll}
13 & \ldots \mathrm{a} 2 \\
14 \mathrm{~h} 8=\mathrm{Q} & \mathrm{~b} 1=\mathrm{Q}+
\end{array}
$$

Now we can see the point of White's 7th and 11th moves. The rook is defended so White can afford to move his king.

## 15 Ke3!

After 15 Kd 4 ? $\mathrm{Q} \times \mathrm{g} 6$ the fourth rank is blocked and I cannot see a win since the rook is unable to enter the attack with check, e.g. 16 Qb8+ (16 Rh4 is clever, but Black can play $16 \ldots \mathrm{Qd} 6+17 \mathrm{Ke} 3+\mathrm{Kb} 3$ ) Ka4 17 Qa7+Kb3 (avoiding the check at c5) and White cannot make progress.

After 15 Ke 3 ! Black has two alternatives but the attacking force of queen and rook is too strong:

1) $15 \ldots \mathrm{c} 216 \mathrm{Rh} 4+\mathrm{Kb} 517 \mathrm{Qb} 8+\mathrm{Ka} 518 \mathrm{Qa} 7+\mathrm{Kb} 519 \mathrm{Qb} 7+\mathrm{Ka} 520$ $\mathrm{Rh} 5+\mathrm{Ka} 421 \mathrm{Qa} 6+\mathrm{Kb} 322 \mathrm{Rb} 5+$ and 23 Qc 6 mate.
2) $15 \ldots \mathrm{Q} \times \mathrm{g} 616 \mathrm{Rh} 4+\mathrm{Kb} 3(15 \ldots \mathrm{~Kb} 516 \mathrm{Qb} 8+\mathrm{Kc} 517 \mathrm{Ob} 4+\mathrm{Kc} 618$ Re4+ etc.) $17 \mathrm{Qb} 8+\mathrm{Kc} 218 \mathrm{Rh} 2+\mathrm{Kc1} 19$ Qf4! Qf6 (19...Qh6 20 $\mathrm{R} \times \mathrm{h} 6 \mathrm{~g} \times \mathrm{h} 621 \mathrm{Kd} 3+$ wins $) 20 \mathrm{Rh} 1+\mathrm{Kb} 221 \mathrm{Qb} 4+\mathrm{Kc} 222 \mathrm{Rh} 2+\mathrm{Kc} 1$ $23 \mathrm{Qa} 3+\mathrm{Kd} 124 \mathrm{Rh} 1+\mathrm{Kc} 225 \mathrm{Q} \times \mathrm{a} 2$ mate. B2)

| 4 |
| :--- |
| 5 |$\quad \quad .. . b 3!$

Not $5 \mathrm{~K} \times \mathrm{c} 3$ ? d4+ and Black will promote first, nor $5 \mathrm{Kc} 5 \mathrm{a} 26 \mathrm{Re} 7+$

Kc8 7 Kc 6 Kd 8 and White cannot even draw, since $8 \mathrm{Rd} 7+\mathrm{Kc} 89 \mathrm{Ra} 7$ $\mathrm{b} 210 \mathrm{Kd} 6 \mathrm{al}=\mathrm{Q}$ covers the mate.

$$
5 \text {...a2 }
$$

This is the most dangerous move because Black will be able to advance his c-pawn with check after both sides promote. If Black pushes another pawn White is not worse, for example $5 \ldots \mathrm{~b} 26 \mathrm{~h} \times \mathrm{g} 7 \mathrm{bl}=\mathrm{Q} 7$ $\mathrm{g} 8=\mathrm{Q} \mathrm{Qd} 3+8 \mathrm{Kc} 5 \mathrm{Q} \times \mathrm{e} 29 \mathrm{Q} \times \mathrm{d} 5+$ and only White can win.

## 6 Rel!

Not $6 \mathrm{~h} \times \mathrm{g} 7 \mathrm{al}=\mathrm{Q} 7 \mathrm{~g} 8=\mathrm{Qc} 2+8 \mathrm{~K} \times \mathrm{d} 5(8 \mathrm{Kc} 5 \mathrm{Qa} 5+\mathrm{is} \mathrm{similar}) \mathrm{Qa} 5+$ $9 \mathrm{Kd} 4(9 \mathrm{Kc} 6 \mathrm{cl}=\mathrm{Q}$ or $9 \mathrm{Kd} 6 \mathrm{Qc} 7+10 \mathrm{Kd} 5 \mathrm{cl}=\mathrm{Q}) \mathrm{Qb} 6+10 \mathrm{Kd} 5 \mathrm{Qc} 6+$ $11 \mathrm{Kd} 4 \mathrm{Qd} 6+12 \mathrm{Ke} 4 \mathrm{cl}=\mathrm{Q}$ and Black wins.

$$
\begin{array}{ll}
6 & \ldots b 2 \\
7 & h \times g 7
\end{array} \quad \text { al }=0
$$

$7 \ldots \mathrm{bl}=\mathrm{Q} 8 \mathrm{~g} 8=\mathrm{Q}$ is much the same; Black has nothing better than to take the rook.

$$
8 \mathrm{~g} 8=\mathrm{Q} \quad \mathrm{Q} \times \mathrm{e} 1
$$

With the rook on the first rank preventing the promotion of a second pawn Black cannot win.

| 9 | Q $\times \mathrm{d} 5+$ | Kc 7 |
| ---: | :--- | ---: |
| 10 | Qc5 | Kd 7 |
| 11 | Qd5 + |  |

with a draw by perpetual check as $11 \ldots \mathrm{Ke} 8 / \mathrm{c} 7$ is met by $12 \mathrm{Qf7}+$ forcing the king back to the d-file.

Moving on to positions in which both sides have rooks, we start with two positions featuring a faulty resignation and a faulty draw agreement respectively!


Sax-Tsheshkovsky, Rovinj-Zagreb 1975

Black surprisingly resigned in this position, although the draw is not at all difficult.

$$
1 \text {...Kh7! }
$$

Not 1...Kh6? 2 f7 Rc8 3 Rg8, however.

## 2 f7

The only dangerous move. After $2 \mathrm{Rg} 7+$ Black can draw with $2 \ldots$ Kh8 or 2...Kh6.

$$
2 \text {...Rc8! }
$$

The only move. 2...Rc6 $+3 \mathrm{Kd7} \mathrm{Rf6} 4 \mathrm{Ke} 7$ and 2...Re1+3 Kd7 Rf1 $4 \mathrm{Ke} 7 \mathrm{Rel}+5 \mathrm{Kf8} \mathrm{Rfl}$ (5...Rhl 6 Re 3 and 7 Ke 7 wins) $6 \mathrm{Rh} 3+\mathrm{Kg} 6$ $7 \mathrm{Kg} 8 \mathrm{Rxf7} 8 \mathrm{Rg} 3+$ both win for White.

## 3 Kd7

Or $3 \mathrm{Ke} 7 \mathrm{Rc} 7+4 \mathrm{Ke} 8 \mathrm{Re} 8+$ and White can make no progress.
3 ...Ra8
and next move Black starts checking from the side, which guarantees the draw.

The next position is no more complex.


If $1 \mathrm{Rh} 8+\mathrm{Kf} 72 \mathrm{Rh} 1 \mathrm{a} 23 \mathrm{Ral} \mathrm{Kc} 84 \mathrm{Kc} 7 \mathrm{Ra} 35 \mathrm{Kc} 8 \mathrm{Kc} 76 \mathrm{c} 7 \mathrm{Ke} 8$ Black draws, so White makes one last attempt to win.

$$
1 \text { Kc5 ...a2? }
$$

$1 \ldots \mathrm{Kd} 8$ ! was the right way to cope with the threat of 2 c 7 , when White must take a draw, since $2 \mathrm{Kb5a} 2$ is dangerous only for White.

$$
2 \mathrm{c} 7
$$

Black must start checking, as he has no defence to the promotion threat.

$$
2 \text {...Ra5+ }
$$

The game now concluded $3 \mathrm{~Kb} 6 \mathrm{Ra}+4 \mathrm{Kc} 5 \mathrm{Ra} 5+5 \mathrm{Kc} 6 \mathrm{Ra} 6+6$ Kd5 Ra5+ 7 Ke6 Ra6+ and a draw was agreed. Even in the final position White can still win but the quickest method is.

| $3 \mathbf{K c 4}$ | $\mathrm{Ra} 4+$ |
| :--- | :--- |
| $\mathbf{4} \mathbf{~ K b 3}$ | $\mathrm{Ra3}+$ |
| $\mathbf{5} \mathbf{~ K c 2 !}$ | $\mathrm{Re} 3+$ |

Or $5 \ldots \mathrm{al}=\mathrm{N}+6 \mathrm{~Kb} 2$ winning.
6 Kb 2 !
winning the pawn, after which the Black rook is tied to the c-file and White just marches his king up the board to c8, reaching the Lucena position.

The next position is more subtle. White had a choice of two very similar variations, but alas he went for the wrong one.


Neustadt-Volkevic, Moscow Ch. 1958

| 1 | ...Kf3 |
| :---: | :---: |
| 2 c 4 | Ke4! |

$2 \ldots \mathrm{Kg} 23 \mathrm{R} \times \mathrm{h} 2+\mathrm{K} \times \mathrm{h} 24 \mathrm{c} 5$ only draws, so Black correctly decides to attack the White pawn.

$$
3 \text { c5? }
$$

The losing move. White could have drawn by 3 Ke 6 ! Kd 4 (3...Rh6 + 4 Kf 7 and now both $4 \ldots \mathrm{Kd} 45 \mathrm{Kg} 7 \mathrm{Rl} 136 \mathrm{Kg} 6 \mathrm{~K} \times \mathrm{c} 77 \mathrm{Kg} 5 \mathrm{Kd} 48$ Kg 4 and $4 \ldots \mathrm{Kf} 35 \mathrm{Ke} 7!\mathrm{Kg} 26 \mathrm{R} \times \mathrm{h} 2+\mathrm{K} \times \mathrm{h} 27 \mathrm{Kd} 7 \mathrm{Rl} 58 \mathrm{Kd} 6$ lead
to a draw) $4 \mathrm{Kf} 6 \mathrm{~K} \times \mathrm{c} 45 \mathrm{Kg} 6 \mathrm{Rh} 86 \mathrm{Kg} 5 \mathrm{Kd} 4$ (or $6 \ldots \mathrm{Kd} 37 \mathrm{Kf} 4 \mathrm{Ke} 2$ $8 \mathrm{Kg} 3 \mathrm{Rg} 8+9 \mathrm{Kf} 4!\mathrm{Rg} 210 \mathrm{Ra} 1$, when both $10 \ldots \mathrm{Kf} 211 \mathrm{Rh} 1$ and $10 . . \mathrm{Kd} 311 \mathrm{Rh} 1$ draw) 7 Kf 4 ! ( 7 Kg 4 would transpose to the game) followed by 8 Kg 3 with a clear draw.
$\mathbf{3}$ Ke7 $\quad$...Rh6+

4 Kd 7 Kd 55 cb Rh7+ loses the pawn under less favourable circumstances, as the White king is further from the Black pawn.

4
$5 \mathrm{Kf7} \quad \mathrm{~K} \times \mathrm{c} 5$
6 Kg 7
...Kd5
Rh3

This is similar to the drawing tine given above, but with an important difference. White has a tempo less and in order to regain it he must attack the Black rook, but this involves putting the king on the unfavourable square g4, whereas in the drawing line White could go to f 4 to keep the Black king out.

| $7 \mathbf{K g} 6$ | Kd4 |
| ---: | :--- |
| $8 \mathbf{~ K g} 5$ | Ke3 |
| $9 \mathbf{~ K g} 4$ | Rh8 |
| $10 \mathbf{~ K g} 3$ | $\mathrm{Rg} 8+!$ |
| $11 \mathbf{K h} 4$ |  |

Or 11 Kh 3 Kf 2 ! $12 \mathrm{R} \times \mathrm{h} 2+\mathrm{Kf} 3$, winning the rook.
11

$$
0_{0-1} \ldots \mathrm{Kf3}
$$

since White cannot prevent ...Kg2. .
In the next position both sides have dangerous passed pawns and despite White's more active king Black managed to win the game. Nevertheless, White was holding the draw until very near the end.


Gutman-Alburt, USSR Ist league 1978

## 1 a6

After 1 Rb 5 ? $\mathrm{f} 32 \mathrm{R} \times \mathrm{b} 4 \mathrm{f} 23 \mathrm{Rb} 1 \mathrm{Rb} 2+4 \mathrm{R} \times \mathrm{b} 2 \mathrm{f} 1=\mathrm{Q}$ Black would have the advantage, although objectively the result should probably be a draw.
1 ...Ra2

A surprising, but good move. If $1 \ldots \mathrm{f} 3$ (1...b3? $2 \mathrm{Rb} 5 \mathrm{f} 33 \mathrm{R} \times \mathrm{b} 3 \mathrm{f} 2$ 4 Rf 3 wins for White) 2 a7 Ra2 $3 \mathrm{Ra} 5 \mathrm{R} \times \mathrm{a} 54 \mathrm{~K} \times \mathrm{a} 5 \mathrm{f} 25 \mathrm{a} 8=\mathrm{Q}$ $\mathrm{f} 1=\mathrm{Q} 6 \mathrm{Qe} 4+$ (defending both pawns) and $7 \mathrm{~K} \times \mathrm{b} 4$ should win for White.

## 2 a7

Other moves leading to draws are $2 \mathrm{Rb} 5 \mathrm{f} 33 \mathrm{R} \times \mathrm{b} 4 \mathrm{f} 24 \mathrm{Rbl} \mathrm{Rb} 24$ $5 \mathrm{R} \times \mathrm{b} 2 \mathrm{f} 1=\mathrm{Q} 6 \mathrm{a} 7 \mathrm{Qf} 3$ and $2 \mathrm{Ra} 5 \mathrm{~b} 33 \mathrm{a} 7 \mathrm{~b} 24 \mathrm{a} 8=\mathrm{Q} \mathrm{bl}=\mathrm{Q}+5 \mathrm{Kc} 7$ $\mathrm{Qh} 7+6 \mathrm{~Kb} 6$, when Black should repeat moves, since $6 \ldots \mathrm{Rb} 2+7$ Rb 5 is good for White. The move played prevents $2 \ldots \mathrm{f} 3$ due to ? Ra5.

| 2 | $\ldots \mathrm{~b} 3$ |
| :--- | ---: |
| $\mathbf{3} \mathrm{Rb5}$ | b 2 |
| 4 c 5 |  |

Perhaps White was trying to win, for he could have drawn comfortably by $4 \mathrm{~Kb} 7(4 \mathrm{a} 8=\mathrm{Q}$ ? $\mathrm{R} \times \mathrm{a} 85 \mathrm{R} \times \mathrm{b} 2 \mathrm{Rb} 8+$ wins) $\mathrm{f} 35 \mathrm{a} 8=\mathrm{Q} \mathrm{R} \times \mathrm{a} 86$ $\mathrm{R} \times \mathrm{b} 2 \mathrm{Rf} 87 \mathrm{Rf} 2$. A similar line, also good enough for half a point, is $4 \mathrm{Kc} 6 \mathrm{f} 35 \mathrm{R} \times \mathrm{b} 2 \mathrm{R} \times \mathrm{a} 76 \mathrm{Rf} 2 \mathrm{R} 177 \mathrm{c} 5 \mathrm{Kc} 58 \mathrm{~Kb} 6 \mathrm{Kf} 49 \mathrm{c} 6 \mathrm{Kg} 3$ 10 Rf 1 ( $10 \mathrm{c} 7 \mathrm{R} \times \mathrm{c} 711 \mathrm{R} \times \mathrm{f} 3+$ is again a draw) $\mathrm{K} \times 14411 \mathrm{c} 7 \mathrm{R} \times \mathrm{c} 7$ $12 \mathrm{~K} \times \mathrm{c} 7 \mathrm{Kg} 3$.

| 4 | ..f3 |
| :--- | :--- |
| $\mathbf{5}$ c6 | f2 |
| $\mathbf{6}$ c7 | Kd7 |
| 7 | Rd5+ |
| 7 |  |

Not $7 \mathrm{~Kb} 7 \mathrm{R} \times \mathrm{a} 7+8 \mathrm{~K} \times \mathrm{a} 7 \mathrm{f} 1=\mathrm{Q}$ and wins.
7 RdI $\quad . . . K e 7$

Forced. White cannot go back, since $8 \mathrm{Rb5}$ loses to $8 \ldots \mathrm{fI}=\mathrm{O} 9 \mathrm{c8}=\mathrm{O}$ $\mathrm{Q} \times \mathrm{b} 5+!10 \mathrm{~K} \times \mathrm{b} 5 \mathrm{bl}=\mathrm{O}+$.

$$
\begin{aligned}
& 8 \\
& 9 \mathrm{a} 8=\mathrm{Q} ?!
\end{aligned} \quad \ldots \text { Ral }
$$

A dubious move. White should have played $9 \mathrm{cs}=\mathrm{Q} \quad \mathrm{bl}=\mathrm{Q}+10$ $\mathrm{R} \times \mathrm{b} 1 \mathrm{R} \times \mathrm{b} 1+11 \mathrm{Kc} 7 \mathrm{Rcl}+(\operatorname{not} 11 \ldots \mathrm{fl}=\mathrm{Q} 12 \mathrm{Qd} 7+\mathrm{Kf6} 13 \mathrm{a} 8=\mathrm{Q}$ $\mathrm{Rcl}+14 \mathrm{Kd} 8 \mathrm{Rd} 115$ Qc6 + Ke5 16 Qc6+, followed by 17 Of5 + and $18 \mathrm{Q} \times \mathrm{f} 1$, when White wins) $12 \mathrm{Kb8} \mathrm{R} \times \mathrm{c} 8+(12 \ldots \mathrm{fl}=\mathrm{O}$ sets the trap
$13 \mathrm{a} 8=\mathrm{Q}$ ? Qf4+ $14 \mathrm{Ka} 7 \mathrm{Qd} 4+15 \mathrm{~Kb} 8 \mathrm{Od} 6+16 \mathrm{Ka} 7 \mathrm{Ra} 1+17 \mathrm{~Kb} 7$ $\mathrm{Rb} 1+$ mating, but $13 \mathrm{Q} \times \mathrm{c} 1$ is an immediate draw, while $13 \mathrm{Ob} 7+$ may give White some winning chances) $13 \mathrm{~K} \times \mathrm{c} 8 \mathrm{f} 1=\mathrm{Q} 14 \mathrm{a} 8=\mathrm{Q}$ with a draw.

$$
\begin{gathered}
9 \\
10 \mathrm{Rb} 1
\end{gathered} \quad \ldots \mathrm{R} \times \mathrm{a} 8
$$

Preventing $10 \ldots$ Ral, because after $11 \mathrm{c} 8=\mathrm{O}$ Black cannot promote on b1. Of course, 10 Kb 7 or 10 Rf 1 would fail to 10 ... Ral $11 \mathrm{c} 8=\mathrm{O}$ $\mathrm{bl}=\mathrm{O}+$ and Black emerges a rook up.

10
...R18!
Black threatens $11 \ldots \mathrm{fl}=\mathrm{Q}$ and forces White's reply.

## 11 Rf1 <br> Rg8

Now the threat is $12 \ldots \mathrm{Rg} 113 \mathrm{c} 8=\mathrm{Q}$ bl $=\mathrm{Q}+$, so White must either play Rbl or move his king off the dangerous $b$-file.

12 Kc6??
Losing immediately. 12 Ka 7 Kd 613 Kb 7 Rgl is also bad, but 12 RbI ! would have drawn with careful play by White: 12 ...Kd6 13 h 5 ! (13 Kb7? Rg7! $14 \mathrm{Rd} 1+\mathrm{Kc} 515 \mathrm{Rb} 1 \mathrm{Rf} 7!16 \mathrm{Rf} 1 \mathrm{Ke} 417 \mathrm{~Kb} 8 \mathrm{R} \times \mathrm{c} 718$ $\mathrm{K} \times \mathrm{c} 7 \mathrm{Kd} 319 \mathrm{~h} 5 \mathrm{Ke} 2$ and White lacks one tempo to draw the game-note that 15 Rb 1 was necessary, as $15 \ldots \mathrm{Rg} 1$ was a threat, and that $15 \ldots$ Rf7! avoided the loss of a tempo if White advances h5h6 before promoting his c-pawn) Kc5 14 h 6 Rf 815 Rf 1 Ke 416 Kb 7 $\mathrm{Kd} 317 \mathrm{c} 8=\mathrm{Q} \mathrm{R} \times \mathrm{c} 818 \mathrm{~K} \times \mathrm{c} 8 \mathrm{Ke} 219 \mathrm{~h} 7 \mathrm{~K} \times \mathrm{f} 120 \mathrm{~h} 8=\mathrm{Q} \quad \mathrm{bl}=\mathrm{O} 21$ $\mathrm{Qh} 1+\mathrm{Ke} 222 \mathrm{Q} \times \mathrm{b} 1 \mathrm{fl}=\mathrm{Q}$ and the position peters out to equality.

12 0-1 $\cdots$ Rg6+!
since $\mathrm{Kc} 5 / \mathrm{d} 5$ allows . . Kd7, while moving to the b-file loses to 13 . . . Rg1.
The following position is another sharp struggle involving a race between the rival sets of passed pawns.


Vogt-Espig, match 1975

White has an extra pawn, but Black's central passed pawns are well supported by his king. White has the advantage, but it will be a close race!

## 1 Ke2

The king should stay back to block the pawns. After 1 Kf4? e3 2 b5 (2 Kf3 Rb8! with the idea of $3 \ldots \mathrm{Rf} 8+4 \mathrm{Ke} 2 \mathrm{Ke} 4$ is also good for Black) Rb8 $3 \mathrm{~g} 6 \mathrm{Rf} 8+4 \mathrm{Kg} 5 \mathrm{~d} 35 \mathrm{~g} 7 \mathrm{Rg} 86 \mathrm{~h} 6 \mathrm{~d} 2$ Black wins.

## 1

...Ke5
Preparing ...Kf4 and ...d3 + . The alternative was $1 \ldots \mathrm{Kc} 4$, but after $2 \mathrm{Rc} 2+!(2 \mathrm{~h} 5 \mathrm{Kc} 33 \mathrm{~g} 6 \mathrm{~K} \times \mathrm{b} 24 \mathrm{~g} 7 \mathrm{Rb} 85 \mathrm{~h} 6 \mathrm{Kc} 26 \mathrm{~h} 7 \mathrm{~d} 3+7 \mathrm{Ke} 3$ $\mathrm{d} 28 \mathrm{~g} 8=\mathrm{Q}$ is also possible, when both $8 \ldots \mathrm{R} \times \mathrm{g} 89 \mathrm{~h} \times \mathrm{g} 8=\mathrm{Q} \mathrm{dl}=\mathrm{Q}$ $10 \mathrm{Qc} 4+\mathrm{Kb} 211 \mathrm{~K} \times \mathrm{e} 4$ and $8 \ldots \mathrm{dl}=\mathrm{Q} 9 \mathrm{Q} \times \mathrm{b} 8$ give White some winning chances, but $2 \mathrm{Rc} 2+$ is probably stronger) $\mathrm{Kd} 5(2 \ldots \mathrm{~Kb} 33$ $\mathrm{Rc} 6!\mathrm{R} \times \mathrm{b} 54 \mathrm{~g} 6 \mathrm{~d} 3+5 \mathrm{Kd} 2 \mathrm{Rd} 56 \mathrm{~g} 7 \mathrm{Rd} 87 \mathrm{Rd} 6!\mathrm{Re} 88 \mathrm{Ke} 3 \mathrm{Rg} 8$ 9 Rd 7 , followed by the advance of the h-pawn, wins for White) 3 $\mathrm{Rc} 8 \mathrm{R} \times \mathrm{b} 54 \mathrm{~g} 6 \mathrm{Rb} 2+5 \mathrm{Kfl}$, White has good winning chances, for example $5 \ldots \mathrm{Rb} 1+6 \mathrm{Kg} 2 \mathrm{Rb} 2+7 \mathrm{Kh} 3 \mathrm{Rb} 3+8 \mathrm{Kg} 4 \mathrm{Rb} 19 \mathrm{~h} 5 \mathrm{e} 310$ h6 e2 $11 \mathrm{Re} 8 \mathrm{~d} 312 \mathrm{~g} 7 \mathrm{Rg} 1+13 \mathrm{Kf} 3 \mathrm{Kc} 5(13 \ldots \mathrm{~d} 214 \mathrm{Rd} 8+$ and 15 $\mathrm{K} \times \mathrm{e} 2) 14 \mathrm{R} \times \mathrm{e} 2$ and wins.

## 2 h5 <br> Kf5

Black chooses to defend passively, when White's extra pawn becomes an important factor. Informator claimed a draw after $2 \ldots \mathrm{Kf4}$, but it seems that White can still win: $2 \ldots \mathrm{Kf} 43 \mathrm{~g} 6 \mathrm{~d} 3+4 \mathrm{Kd} 2 \mathrm{Rd} 65 \mathrm{Rb} 4$ Kf3 $6 \mathrm{R} \times \mathrm{e} 4 \mathrm{~K} \times \mathrm{e} 47 \mathrm{~g} 7 \mathrm{Rd} 88 \mathrm{~h} 6 \mathrm{Ra} 89 \mathrm{~h} 7 \mathrm{Ra} 2+10 \mathrm{Kc} 3 \mathrm{~d} 211 \mathrm{~g} 8=\mathrm{Q}$ $\mathrm{d} 1=\mathrm{Q} 12 \mathrm{Qe} 6+$ ! (Informator gave only $12 \mathrm{Q} \times \mathrm{a} 2 \mathrm{Od} 4+13 \mathrm{~Kb} 3 \mathrm{Od} 5+$ $14 \mathrm{Ka} 3 \mathrm{Qc} 5+$ with perpetual check) and now:
(A) $12 \ldots \mathrm{Kf} 413 \mathrm{O} \times \mathrm{a} 2 \mathrm{Qc} 1+(13 \ldots \mathrm{Qf} 3+14 \mathrm{~Kb} 4$ stops all checks) 14 $\mathrm{Qc} 2 \mathrm{Qe} 3+(14 \ldots \mathrm{Qa} 3+15 \mathrm{Kc} 4$ or $14 \ldots \mathrm{Qal}+15 \mathrm{~Kb} 3) 15 \mathrm{~Kb} 2 \mathrm{Qe} 5+$ $(15 \ldots \mathrm{Qd} 4+16$ Qc3 Qf2 $+17 \mathrm{~Kb} 3) 16 \mathrm{Qc} 3 \mathrm{Q} \times \mathrm{b} 5+(16 \ldots \mathrm{Qc} 2+17$ Ka3) $17 \mathrm{Ka} 3 \mathrm{Qa} 6+18 \mathrm{~Kb} 3$ and wins.
(B) $12 \ldots \mathrm{Kf} 313 \mathrm{Q} \times \mathrm{a} 2 \mathrm{Qc} 1+(13 \ldots \mathrm{Qe} 1+14 \mathrm{Qd} 2$, and now both $14 \ldots \mathrm{Qe} 5+15 \mathrm{Kc} 2$ and $|4 \ldots \mathrm{Qa}|+15 \mathrm{Kc} 4 \mathrm{Qa} 4+16 \mathrm{Qb} 4$ win for White) $14 \mathrm{Qc} 2 \mathrm{Qel}+(14 \ldots \mathrm{Qal}+15 \mathrm{Kl} 3$ or $14 \ldots \mathrm{Qa} 3+15 \mathrm{Kc} 4) 15$ Kb 2 and Black must resign.

$$
3 \mathrm{~g} 6 \quad \text { Kf6 }
$$

Or 3...Kg5 $4 \mathrm{~g} 7 \mathrm{Rb} 85 \mathrm{Rb} 1!\mathrm{Kh} 6(5 \ldots \mathrm{~K} \times \mathrm{h} 56 \mathrm{~g} 8=\mathrm{Q} \mathrm{R} \times \mathrm{g} 87 \mathrm{Rh} 1+$ wins) $6 \mathrm{Rg} 1 \mathrm{Rg} 87 \mathrm{~b} 6 \mathrm{Kh} 7(7 \ldots \mathrm{~K} \times \mathrm{h} 58 \mathrm{~b} 7 \mathrm{Kh} 69 \mathrm{~b} 8=\mathrm{Q}$ picks up the rook) 8 b 7 e 39 Kd 3 Kh 6 (there is nothing else) 10) $\mathrm{Rb} 1 \mathrm{Rb} 811 \mathrm{~g} 8=\mathrm{Q}$ and wins.

## 4 Rb4 Rd6

If $4 \ldots \mathrm{Kg} 75 \mathrm{R} \times \mathrm{d} 4 \mathrm{R} \times \mathrm{b} 56 \mathrm{Rd} 7+\mathrm{Kh} 6(6 \ldots \mathrm{Kf} 67 \mathrm{Rf} 7+$ or $6 \ldots \mathrm{~K} * 8$
$7 \mathrm{~h} 6) 7 \mathrm{Rh} 7+\mathrm{Kg} 58 \mathrm{~g} 7 \mathrm{Rb} 89 \mathrm{Rh} 8$, forcing promotion.

| 5 b 6 | $\mathrm{~d} 3+$ |
| :--- | :--- |
| $6 \mathrm{Kd1}!$ | e 3 |
| 7 b 7 | d 2 |
| 8 | Rb1 |

All forced, but now White can liquidate to an ending of $\mathrm{R}+2 \mathrm{P} \vee \mathrm{R}$, which is an easy win thanks to the bad position of Black's king.

| $9 \mathrm{~b} 8=\mathrm{Q}$ | $\mathrm{e} 2+$ |
| :--- | :--- |
| $10 \mathrm{~K} \times \mathrm{e} 2$ | $\mathrm{~d}=\mathrm{Q}+$ |
| $11 \mathrm{R} \times \mathrm{dI}$ | $\mathrm{R} \times \mathrm{b} 8$ |
| 12 Rd 7 | Kg 5 |

White will play 13 Rh 7 against anything except $12 \ldots \mathrm{Rh} 8$, when 13 $\mathrm{Rf} 7+\mathrm{Kg} 514 \mathrm{Rh}^{2}$ wins.

## 13 Rh7

$$
1-0
$$

as, barring checks, Whitc's next three mioves will be g7, h6 and Rh8.


Estrin-Pytel, Albena 1973
This fascinating ending was analysed in the British Chess Magazine (Aug. 1974) by P. Griffiths and he concluded that both sides conducted the ending accurately. However, this conclusion needs to be modified, as we shall see. The position also appeared in Informator, with analysis by Estrin and the editors, coming to the same conclusion as Griffiths.

## $1 \mathrm{Ra} 7+$ ?

White could have won here with 1 e 6 , not mentioned in Informator. The analysis continues 1 e6 ( 1 d 7 ? Rd1 2 e6 Kt6 only succeeds in blocking the pawns, as $3 \mathrm{~d} 8=\mathrm{Q} \mathrm{R} \times \mathrm{d} 84 \mathrm{R} \times \mathrm{d} 8 \mathrm{a} 25 \mathrm{Ra} 8 \mathrm{~b} 3$ is winning for Black) Rel + (1...Kf6 $2 \mathrm{c} 7 \mathrm{Rel}+3 \mathrm{Kd} 3$ wins easily) $2 \mathrm{Kf5}$ ! (2

Kd 5 only draws after $2 \ldots \mathrm{~b} 3!3 \mathrm{R} \times \mathrm{a} 3 \mathrm{~b} 24 \mathrm{Rg} 3+\mathrm{Kf} 65 \mathrm{Rf} 3+\mathrm{Kg} 7$, with a draw by repetition, while 3 d 7 ? b 2 is, if anything, better for Black) b3 ( $2 \ldots \mathrm{Rf} 1+3 \mathrm{Kg} 5$ wins after $3 \ldots \mathrm{Rf} 84 \mathrm{Ra} 7+\mathrm{Kg} 85 \mathrm{e} 7$ or $3 \ldots \mathrm{Rg} 1+4 \mathrm{Kh} 4 \mathrm{Rh} 1+5 \mathrm{Kg} 3 \mathrm{Rg} 1+6 \mathrm{Kf} 2) 3 \mathrm{Ra} 7+\mathrm{Kh} 6(3 \ldots \mathrm{Kf} 84$ $\mathrm{Rf} 7+\mathrm{Kg} 85 \mathrm{~d} 7 \mathrm{Rdl} 6 \mathrm{e} 7$ promotes a pawn) $4 \mathrm{R} \times \mathrm{a} 3 \mathrm{~b} 25 \mathrm{Rb} 3 \mathrm{bl}=\mathrm{O}$ $6 \mathrm{R} \times \mathrm{b} 1 \mathrm{R} \times \mathrm{b} 17 \mathrm{~d} 7$ and one of the pawns gets through.

$$
1 \text {...Kg6 }
$$

1...Kf8 $2 \mathrm{e} 6 \mathrm{Rel}+3 \mathrm{Kf5} \mathrm{Rf1}+4 \mathrm{Kg} 4$ wins comfortably, e.g. 4...b. 3 5 e7+Kf7 6 Ra8 Rel 7 d7.

$$
2 \mathrm{~d} 7
$$

Rel+
The interesting alternative line $2 \ldots \mathrm{Rdl} 3 \mathrm{Ra} 6+\mathrm{Kt} 74 \mathrm{Rd} 6 \mathrm{R} \times \mathrm{d} 65$ $\mathrm{e} \times \mathrm{d} 6 \mathrm{a} 26 \mathrm{~d} 8=\mathrm{Q}$ al$=\mathrm{Q}$ teads to a queen and pawn ending which should be winning for White, for example $7 \mathrm{Qe} 7+\mathrm{Kg} 6$ (7..Kgg 8 Oe6 Kf8 9 d7 is similar to the main line) 8 Qef + (Informator and $B C M$ both gave $8 \mathrm{Qe} 8+\mathrm{Kg} 59 \mathrm{~d} 7$, but $9 \mathrm{Qe} 5+!$ wins at once, while $8 \ldots \mathrm{Kg} 7$ is more logical, since it deprives White of the option of hiding his king on 88 when Black slarts cheeking) Kg 79 d 7 , and when Black starts checking White hides his king on b7. leaving Black with just one cheek on the h1-b7 diagonal. which can be shut off by Oct. We can see that the queen is much better placed on ef than on e8 since it can interpose on a wider variety of squares.

| 3 Kf4 | Rf1+ |
| :--- | :--- |
| 4 Ke4 | Rel + |
| 5 Kf4 |  |

The repetition was the consequence of White's time-trouble. Advancing the king was no help, e.g. 5 Kd 5 Kf 5 ! $6 \mathrm{Kd6} \mathrm{RdI}+$ (Griffiths gave the more complex $6 \ldots$...b3) $7 \mathrm{Ke} 7 \mathrm{~K} \times \mathrm{e} 58 \mathrm{Ra} 5+\mathrm{Ke} 49 \mathrm{Ra} 4 \mathrm{R} \times \mathrm{d} 7+10$ $\mathrm{K} \times \mathrm{d} 7 \mathrm{Kd} 311 \mathrm{R} \times \mathrm{b} 4 \mathrm{Kc} 3$, with a clear draw.

| 5 | 5 | Rf1+ |
| :---: | :---: | :---: |
|  | $6 \mathrm{Ke3}$ | Rd1 |

The best move. If $6 \ldots \mathrm{Rf} 87 \mathrm{Ke} 4(7 \mathrm{Kd} 4 \mathrm{Rb} 88 \mathrm{Kc} 5$ allows a draw after $8 \ldots \mathrm{~b} 39 \mathrm{R} \times \mathrm{a} 3 \mathrm{~b} 210 \mathrm{Rg} 3+\mathrm{Kf} 711 \mathrm{Rg} 1 \mathrm{Ke} 712 \mathrm{Rbl} \mathrm{K} \times \mathrm{d} 7$ ) Rb8 $8 \mathrm{Kd5}$ (8 e6 Kf6 $9 \mathrm{Kd5} \mathrm{Ke7} \mathrm{is} \mathrm{fine} \mathrm{for} \mathrm{Black)} \mathrm{b3} \mathrm{(8...Kf59} \mathrm{e6} \mathrm{Kf6}$ 10 Kd 6 loses at once, because the threat of e7 can only be stopped by $10 \ldots \mathrm{Rb} 6+$, when 11 Kc 7 wins) $9 \mathrm{R} \times \mathrm{a} 31,210 \mathrm{Rg} 3+\mathrm{K} 15$ (or $10 \ldots \mathrm{Kf} 711 \mathrm{c} 6+\mathrm{Ke} 712 \mathrm{Rg} 7+\mathrm{Kf6} 13 \mathrm{Rf} 7+\mathrm{Kg} 614 \mathrm{Rf1} \mathrm{bl}=\mathrm{Q} 15$ $\mathrm{R} \times \mathrm{b} 1 \mathrm{R} \times \mathrm{b} 116 \mathrm{e} 7$ winning) $11 \mathrm{Rf} 3+\mathrm{Kg} 612 \mathrm{Rf} 1 \mathrm{bl}=\mathrm{Q} \quad 13 \mathrm{R} \times \mathrm{b} 1$ $\mathrm{R} \times \mathrm{b} 114 \mathrm{e} 6$ ! (14 Kc6 Rd1 $15 \mathrm{Kc} 7 \mathrm{Kf5}$ or 14 Ke 6 Rd 15 Ke 7 Kf 516
e6 Ke5 are only draws) Rd1+ (Black has nothing better, as 15 e 7 is threatened) $15 \mathrm{Ke} 5 \mathrm{Rel}+16 \mathrm{Kf4} \mathrm{Rfi}+17 \mathrm{Kg} 3 \mathrm{Rg} 1+18 \mathrm{Kh} 2 \mathrm{Rd} 1$ 19 e7 and White wins.


This is similar to the ending arising in the note to Black's second move, but somewhat better for Black as his king is more actively placed.

## 11 Qc8+

Black will certainly give perpetual check if White plays the immediate 11 d 7 , so White must try to get his queen to the most active possible square before playing d7. But he must also prevent the Black king from occupying e6, e.g. $11 \mathrm{Qf8}+$ ? Ke6 $12 \mathrm{Qc} 7+\mathrm{Kd} 5$, with a draw. as 13 d 7 is impossible. Hence the check on c8.

$$
11 \text {...Kg6? }
$$

Black's defeat can be pinned on this casual move. The point is that after d7 White's main weapon in preventing perpetual will be the interposition of the queen with check. With the king on g6 this can take place on a6, and so White can shelter his king by advancing to a7. After 11 ...Kg5! Black should hold the draw.

| 12 d7 |  |
| :--- | :--- |
| 13 Kd2! | Qe5+ |

White's first task is to pick up the pawn on b4 with his king. If•13 $\mathrm{Kd} 3 \mathrm{Qd} 5+14 \mathrm{Kc} 2 \mathrm{Oa} 2+$ and White cannot approach the pawn. but now Black cannot halt the king march.

## 13 ...Qd4+

Or 13 ...Od5 + (13 ...Qb2 + is impossible, due to the position of Black's king) 14 Kc 1 ! $\mathrm{Og} 5+15 \mathrm{~Kb} 2$, and so on.
14 Kc 2
b3+

The pawn was doomed anyway. Now White heads for a7.

```
15 K\timesb3 Qd3+
```

If $15 \ldots \mathrm{Ob} 6+16 \mathrm{Ka} 4 \mathrm{Qa} 7+17 \mathrm{~Kb} 5$, White wins at once.

| 16 Ka 4 | Qd4+ |
| :--- | :--- |
| $17 \mathrm{Ka5}$ | Qd5+ |
| $18 \mathrm{Kb6}$ | Qd4+ |
| 19 Kb 7 | Qb4+ |
| 20 Ka 7 | Qd4+ |

An unsatisfactory check, but with the king on $g 6$ he has no choice. Of course with the king on $\mathrm{g} 5,20 \ldots \mathrm{Qa} 5+21 \mathrm{~Kb} 8 \mathrm{Qb} 6+22 \mathrm{Qb} 7$ $\mathrm{Qd} 8+23 \mathrm{Ka7} \mathrm{Qa} 5+24$ Qa6 Qc7 + would draw here.

## $21 \mathrm{Ka8} \quad$ Qd5+

Or $21 \ldots \mathrm{Qa} 4+22 \mathrm{~Kb} 8 \mathrm{Qb} 4+(22 \ldots \mathrm{Qf} 4+23 \mathrm{Oc} 7 \mathrm{Qb} 4+24 \mathrm{Ka} 7 \mathrm{Oa} 4+$ 25 Kb 7 wins) $23 \mathrm{Qb} 7 \mathrm{Qf} 8+(23 \ldots \mathrm{Qd6}+24 \mathrm{Qc} 7$ is the same as the last bracket) 24 Ka 7 , followed by Qb6+ or Qd5+ (if Black moves his king to the 5 th rank) and promotion.

as $24 \ldots \mathrm{Oa} 4+25 \mathrm{~Kb} 7$ ends the game.

## 11 Pawn endings

Because of the limited material in king and pawn endings it is possible to analyse positions to a greater depth than in any other type of position. The ability to determine with certainty the results of a wide class of positions means that determining the best move is often not a matter of judgement, but is reduced to calculation. This does not mean that king and pawn endings are easy; indeed, the amount of calculation required can often exceed that of a complex middlegame position. Another problem is that of knowing when you have finished calculating.


Ljubojevic-Browne, Amsterdam 1972
The game concluded $\mathbf{1} \ldots \mathbf{f 5}$ ? $2 \mathbf{2} \mathbf{K b 4}$ and the players agreed a draw, since after $2 \ldots \mathrm{Kd} 53 \mathrm{Kc} 3 \mathrm{Kc} 44 \mathrm{Kd} 2 \mathrm{Kf} 35 \mathrm{~b} 4 \mathrm{Kg} 2$ both sides promote simultancously. Having seen this variation Browne probably assumed that he had finished his analysis and that the position was a draw. But if he had looked a little longer, Browne might have seen the win:

$$
1 \text { \& ...Kd5! }
$$

The position is now identical with that after White's first move in a study by Grigoriev published in Izvestia in 1928. Perhaps players should pay more attention to endgame studies!

## 2 b4

If $2 \mathrm{~Kb} 4 \mathrm{Kd} 43 \mathrm{Ka} 3 \mathrm{f} 54 \mathrm{~Kb} 2(4 \mathrm{~b} 4 \mathrm{f} 45 \mathrm{~b} 5$ loses after both $5 \mathrm{~F} . \mathrm{f} 3$ with a skewer and 5...Kc5) f45 Kc2 Ke36 Kdl Kf2 7 b 4 Kg 28 b 5 f 3 and

Black promotes with check.

| 2 | ..f5 |
| :--- | :--- |
| 3 | b5 |
| $4 \mathrm{b6}$ | f4 |
|  | Kc6! |

The key move. Although it does not prevent White from promoting first it ensures that Black's promotion will be with check.

| $5 \mathrm{Ka6}$ | f 3 |
| :--- | :--- |
| $\mathbf{6} \mathbf{b 7}$ | f2 |
| $7 \mathrm{~b} 8=\mathrm{Q}$ | $\mathrm{f1}=\mathrm{Q}+$ |

when both 8 Ka 7 Oal mate and $8 \mathrm{Ka5} \mathrm{Qal}+9 \mathrm{Kb4} \mathrm{Qbl}+$ win for Black. The manocuvre ...Kc6-d5-c6 is rather surprising.

In the following position also a leap of the imagination is required to see the correct plan.


Mandler-Prochazka, Austria 1924
This looks like a straight race between White's queenside pawns and Black's imminent passed h-pawn. But neither 1 b $5 \mathrm{~K} \times \mathrm{g} 22$ a4 $\mathrm{K} \times \mathrm{h} 3$ $3 \mathrm{a} 5 \mathrm{Kg} 44 \mathrm{~b} 6 \mathrm{a} \times \mathrm{b} 65 \mathrm{a} \times \mathrm{b} 6 \mathrm{~h} 3$ nor $1 \mathrm{~b} 5 \mathrm{~K} \times \mathrm{g} 22 \mathrm{~Kb} 7 \mathrm{~K} \times \mathrm{h} 33 \mathrm{~K} \times \mathrm{a} 7$ $\mathrm{Kg} 44 \mathrm{~b} 6 \mathrm{~h} 35 \mathrm{~b} 7 \mathrm{~h} 26 \mathrm{~b} 8=\mathrm{Q} \mathrm{h} 1=\mathrm{Q}$ is very promising, since although White could play on with $Q+a P \vee Q$ the defence only requires a certain amount of caution to hold the draw. The correct plan is to play the White king back to the kingside to imprison Black's king on the h -file.

| $1 \mathrm{Kd} 5:$ | $\mathrm{K} \times \mathrm{g} 2$ |
| :--- | :--- |
| 2 Ke 4 | $\mathrm{~K} \times \mathrm{h} 3$ |

If Black refuses to take the pawn White just gains a free tempo on the queenside.

$$
3 \mathrm{Kf} 3 \quad \mathrm{Kh} 2
$$

Black's main defensive idea is to stalemate his king by ... Khl followed
by ...h 3 and ...h2 and then hope to give up the a-pawn. We can see that with the White pawn on b5, Black's ...a5 can be answered by b6, but Black will still immobilise himself with ...a4. Fortunately it takes time to set up the stalemate on the kingside.

## 4 Kf 2 !

4 a 4 ? looks bad, as it voluntarily removes one of Black's tempo moves with the a-pawn, and sure enough after $4 \ldots \mathrm{~h} 35 \mathrm{Kf} 2 \mathrm{a} 5$ ! $6 \mathrm{~b} \times \mathrm{a} 5 \mathrm{Kh} 1$ 7 a 6 h 2 White is one tempo short. 4 b 5 ? also draws after $4 \ldots \mathrm{Kg} 1$ ! 5 $\mathrm{Kg} 4 \mathrm{Kg} 2!6 \mathrm{~K} \times \mathrm{h} 4 \mathrm{Kf} 37$ a 4 Kc 48 a 5 Kd 5 .

$$
4 \text {...h3 }
$$

Forced, as $4 \ldots \mathrm{Kh} 35$ b5 promotes the a-pawn.

## 5 b5

Not 4 a4? a5, as above.


Once again White must avoid touching his, a-pawn, as 6 a4 a5 draws, but not 6 a4 h2? 7 a5 a6 8 Kf1! winning.

## 6 ...h2

Or $6 \ldots \mathrm{Kh} 27 \mathrm{a} 4 \mathrm{Kh} 1(7 \ldots \mathrm{Kg} 38 \mathrm{Kg} 1$ or $7 \ldots \mathrm{a} 58 \mathrm{~b} \times \mathrm{a}$ ) $8 \mathrm{a} 5 \mathrm{~h} 2(8 \ldots$ a6 $9 \mathrm{Kf} 2 \mathrm{Kh} 210 \mathrm{~b} \times \mathrm{a} 6) 9 \mathrm{Kf} 2 \mathrm{a} 610 \mathrm{Kf1}$ and mates.

7 b6! a5
Or 7...a×b68a4b59a5.
8 b7 a4
and White wins casily: $9 \mathrm{Ke} 2 \mathrm{Kg} 210 \mathrm{~b} 8=\mathrm{Oh} 1=\mathrm{O} 11 \mathrm{Qb} 7+\mathrm{Kg} 1$ and either $12 \mathrm{Q} \times \mathrm{h} 1+\mathrm{K} \times \mathrm{h} 113 \mathrm{Kd} 3$ or $12 \mathrm{Qb} 6+\mathrm{Kg} 213 \mathrm{Qc} 6+\mathrm{Kg} 114$ $\mathrm{Qc} 5+\mathrm{Kg} 215 \mathrm{Og} 5+\mathrm{Kh} 216 \mathrm{Qh} 4+\mathrm{Kg} 217 \mathrm{Qg} 4+\mathrm{Kh} 218 \mathrm{Kl} 2$ wins.

In the following example, although the game only lasted for two moves after the diagram, the half-point was handed from Black to White and back again!


Belkadi-Pachman, Munich Olympiad 1958

The game concluded $1 \ldots \mathrm{Kc} 32 \mathrm{Kf} 4 \mathrm{~Kb} 20-1$. Looks reasonable on the surface, but let's see it again more slowly. . .

$$
1 \text {...Kc3? }
$$

Missing a win by $1 \ldots \mathrm{~K} \times \mathrm{c} 42 \mathrm{Kf} 4$ and now either $2 \ldots \mathrm{a} 43 \mathrm{Ke} 5$ ( 3 Ke 3 $\mathrm{Kc} 34 \mathrm{Ke} 4 \mathrm{~K} \times \mathrm{c} 25 \mathrm{Kd} 5 \mathrm{~Kb} 26 \mathrm{~K} \times \mathrm{c} 5 \mathrm{~K} \times \mathrm{a} 2$ wins, as does 3 a 3 Kc 3 $4 \mathrm{Ke} 4 \mathrm{~K} \times \mathrm{c} 25 \mathrm{Kd} 5 \mathrm{~Kb} 3$ ) a3 4 Kd 6 Kd 45 Kc 6 c 46 Kb 5 Kc 37 Kc 5 $\mathrm{Kb} 28 \mathrm{~K} \times \mathrm{c} 4 \mathrm{~K} \times \mathrm{a} 29 \mathrm{~Kb} 5 \mathrm{~Kb} 210 \mathrm{c} 4 \mathrm{a} 2$ winning, or $2 \ldots \mathrm{Kd} 43 \mathrm{Kf} 5$ (Black threatened $3 \ldots \mathrm{c} 4$ and $4 \ldots \mathrm{Kc} 3$, while the only other defence, 3 Kf 3 , loses to $3 \ldots \mathrm{c} 44 \mathrm{Ke} 2 \mathrm{Kc} 35 \mathrm{Kd} 1 \mathrm{~Kb} 26 \mathrm{Kd} 2 \mathrm{~K} \times \mathrm{a} 27 \mathrm{Kc} 3 \mathrm{a} 4$ $8 \mathrm{~K} \times \mathrm{c} 4 \mathrm{~Kb} 2$ ) a 44 Ke 6 ( 4 a 3 c 45 Ke 6 c 3 , followed by ...Ke3-d2) a3 5 Kd 6 c 4 and wins, as in the analysis of $2 \ldots \mathrm{a} 4$. However, $2 \ldots \mathrm{Kc} 3$ ? only draws after $3 \mathrm{Kc} 4 \mathrm{a} 44 \mathrm{Kd} 5 \mathrm{c} 4(4 \ldots \mathrm{a} 35 \mathrm{~K} \times \mathrm{c} 5 \mathrm{~Kb} 26 \mathrm{c} 4 \mathrm{~K} \times \mathrm{a} 2$ $7 \mathrm{Kd} 6!\mathrm{Kb} 38 \mathrm{c} 5 \mathrm{a} 29 \mathrm{c} 6 \mathrm{a} 1=\mathrm{O} 10 \mathrm{c} 7$, followed by Kd7 and Black's king is one square outside the winning zone) 5 a 3 .

| 2 Kf 4 | Kb 2 |
| :--- | :--- | :--- |
| $30-1 ?$ |  |

Instead of resigning White could have drawn by $3 \mathrm{Ke} 4 \mathrm{~K} \times \mathrm{a} 24 \mathrm{Kd} 5$ $\mathrm{a} 45 \mathrm{~K} \times \mathrm{c} 5 \mathrm{a} 36 \mathrm{Kd} 6 \mathrm{~Kb} 27 \mathrm{c} 5 \mathrm{a} 28 \mathrm{c} 6 \mathrm{a} 1=09 \mathrm{c} 7$ (this is a clear draw without the pawn on c2, but as it is White is deprived of his usual stalemate resource) $\mathrm{Qa} 6+10 \mathrm{Kd} 7 \mathrm{Qb} 5+11 \mathrm{Kd} 8 \mathrm{Qd} 5+12 \mathrm{Ke8} \mathrm{Qc} 6+$ $13 \mathrm{Kd} 8 \mathrm{Qd} 6+14 \mathrm{Kc} 8 \mathrm{Ka} 3$ (14... Kc 3 renews the stalemate and allows an easy draw by $15 \mathrm{~Kb} 7 \mathrm{Od} 716 \mathrm{~Kb} 8 \mathrm{Qb} 5+17 \mathrm{Ka} 8 \mathrm{Qc} 6+18 \mathrm{~Kb} 8$ $\mathrm{Qb} 6+19 \mathrm{Ka} 8) 15 \mathrm{c} 4 \mathrm{~Kb} 416 \mathrm{~Kb} 7!(16 \mathrm{c} 5 \mathrm{~K} \times \mathrm{c} 517 \mathrm{~Kb} 7 \mathrm{Qd} 718 \mathrm{~Kb} 8$ Kb6 and Black wins) and draws, since without a check on b5 Black cannot force the White king to c 8 , while the trick $16 \ldots \mathrm{Oe} 717 \mathrm{~Kb} 8$ Kc5 $18 \mathrm{c} 8=\mathrm{Q}+\mathrm{Kb} 6$ is foiled by $19 \mathrm{c} 5+$.

This is a noteworthy example of the complexities hidden in such apparently simple positions, since not only did it prove too much for both players, but Staudte and Milescu, moreover, included the pos-
ition in [17] and considered both players to have conducted the ending accurately!

Another position which has fooled several annotators is the following famous ending:


Cohn-Rubinstein, St Petersburg 1909
This position is quoted, in Averbakh and Maizelis [7], for example, to demonstrate the plan of liquidating all the pawns on one side (here the kingside) and then using the resulting superior king position to march over to the other side of the board and win. However, one should always take care when liquidating the whole of one side, for this inevitably increases the defender's drawing chances. In CohnRubinstein Black can win, but only by keeping pawns on both sides of the board.

## 1 Kh1

White is totally tied up and can only await events.

$$
1 \text {...b5 }
$$

If White had weakened his queenside pawns any further, by playing a4 for example, the plan of liquidating all the kingside pawns woutd work, but as it is Black decides to secure a reserve tempo with ...a6, although he could also have won by ignoring the queenside.

| 2 KgI |  |
| :---: | :---: |
| 3 Khl |  |
| 4 Kg 1 | * |
| 5 Khl |  |

At this point Cohn played 6 e 4 and after $6 \ldots \mathrm{f} \times \mathrm{e} 47 \mathrm{f} \times \mathrm{e} 4(7 \mathrm{f} \times \mathrm{g} 4$ $\mathrm{h} \times \mathrm{g} 48 \mathrm{Kgl}$ e3 $9 \mathrm{f} \times \mathrm{e} 3 \mathrm{e} 410 \mathrm{Khl} \mathrm{g} 3$ will pick up the e-pawn) h 48 $K \mathrm{Kg} \mathrm{g} 39 \mathrm{~h} \times \mathrm{g} 3 \mathrm{~h} \times \mathrm{g} 3$ White resigned, in view of $10 \mathrm{f} 4 \mathrm{e} \times 1411 \mathrm{e} 5 \mathrm{~g} 2$ 12 e6 Kg3 13 e $7 \mathrm{f} 314 \mathrm{e} 8=\mathrm{Q}$ f2 mate. We continue with the more interesting move.

This does not yet throw away the win, but a simpler line is $6 \ldots \mathrm{f} \times \mathrm{g} 4$ $7 \mathrm{Kg} 1 \mathrm{~h} 48 \mathrm{Khlg} 39 \mathrm{~h} \times \mathrm{g} 3(9 \mathrm{f} 4 \mathrm{e} \times \mathrm{f} 410 \mathrm{e} \times 14 \mathrm{Kg} 4) \mathrm{h} \times \mathrm{g} 310 \mathrm{f} 3 \mathrm{~g} 2 \mathrm{~F}$ $11 \mathrm{Kgl} \mathrm{Kg} 312 \mathrm{f} 4 \mathrm{e} \times \mathrm{f} 413 \mathrm{e} \times \mathrm{f} 4 \mathrm{~K} \times \mathrm{f} 414 \mathrm{~K} \times \mathrm{g} 2 \mathrm{Ke} 3$ and Black is a tempo up over the note to Black's 9th move, which cuts out the drawing resource available there. Note that in this line Black won because of his threat to leave a pair of e-pawns on the board after the kingside liquidation.

| 7 KgI | $\mathrm{f4}$ |
| :--- | :--- |
| $8 \mathrm{e} \times \mathrm{f4}$ | $\mathrm{e} \times \mathrm{f4}$ |
| $9 \mathrm{Kh1}$ | $\mathrm{f} 3!$ |

Annotators generally give $9 \ldots \mathrm{~g} 310 \mathrm{f} \times \mathrm{g} 3 \mathrm{f} \times \mathrm{g} 311 \mathrm{~h} \times \mathrm{g} 3 \mathrm{~K} \times \mathrm{g} 3$ as the consummation of Black's strategy, overlooking $12 \mathrm{Kgl} \mathrm{Kf} 313 \mathrm{Kf1}$ Ke3 $14 \mathrm{Kel} \mathrm{Kd3} 15 \mathrm{a} 4$ ! a6 (or else Black is left with either one or two tuseless a-pawns) $16 \mathrm{a} \times \mathrm{b} 5 \mathrm{a} \times \mathrm{b} 517 \mathrm{Kdl}$ and White gains the opposition after Black takes the pawn on b4.

| 10 Kg 1 | Kh4 |
| :--- | :--- |
| $11 \mathrm{Kf1}$ | Kh 5 |

This loses a tempo, so that the White king is on the most inconvenient square when Black arrives at g5.

| 12 Kel |  |
| :--- | :--- |
| 13 Kfl | Kg 5 |

Unfortunately White cannot move to the d-file due to 13...Kh4, so the Black king is able to penetrate unchallenged.
13 Kel ...Kf4

If $14 \mathrm{Kg} 1 \mathrm{Ke} 415 \mathrm{~h} 3 \mathrm{~g} \times \mathrm{h} 316 \mathrm{Kh} 2 \mathrm{Kd} 317 \mathrm{~K} \times \mathrm{h} 3 \mathrm{Ke} 218 \mathrm{Kg} 3$ and the reserve tempo 18 ...a6 comes in handy.

| 14 | $\ldots \mathrm{Ke} 4$ |
| :--- | ---: |
| 15 Kd 2 | Kd 4 |
| 16 Kc 2 | Kc 4 |

White must now give way by 17 Kd 2 , and after $17 \ldots \mathrm{~Kb} 318 \mathrm{Ke} 3$ $\mathrm{K} \times \mathrm{a} 319 \mathrm{Kf} 4 \mathrm{~K} \times \mathrm{b} 420 \mathrm{~K} \times \mathrm{g} 4 \mathrm{a} 5$, Black's promotion stops White's. (Some of the above is based on analysis by Staudte and, independently, by Mestel.)

The time has finally arrived to reveal the mysteries of the position mentioned in the introduction. Despite the scanty material, play is unusually subtle.

N. D. Grigoriev, 1 st Pr., Shakhmaty o SSSR 19.37

This position can be understood in terms of the opposition. White, at any moment, has the chance to block the kingside by playing g 4 . He should do so when he has the opposition and then march the kings over to the kingside, all the time maintaining the opposition, finally reaching the position with WKf5 v BKf3, when Black to move loses after $1 \ldots \mathrm{Kg} 22 \mathrm{Kg} 6 \mathrm{Kh} 33 \mathrm{Kh} 5!\mathrm{K} \times \mathrm{h} 24 \mathrm{~K} \times \mathrm{h} 6$. Since White has the opposition at the moment 1 g 4 ! suggests itself, but first let's see why other moves fait:
(A) 1 Kb 5 ? Kb 2 ! (of course, not $\mathrm{L} . . \mathrm{Kb} 3$ ? 2 g 4 , but now if 2 g4 Black takes the opposition with $2 \ldots \mathrm{~Kb} 3$ and draws after 3 Kc 5 Kc 34 Kd 5 Kd3 5 Ke5 Ke3 6 Kf 5 Kf 3 ) 2 Kc 5 (if 2 Kc 6 Kc 3 !-Black must always take the 'anti-opposition' so long as White has not played g4) Kc2 3 Kd 5 Kd 24 Ke 5 Ke 25 Kf 6 (if 5 Kf 5 Kf 26 g 4 Kf 3 or 5 g 4 Ke 3 Black draws easily, but now there is a problem as the anti-opposition square f 3 is inaccessible) g 4 ! (not $5 \ldots \mathrm{Kf} 26 \mathrm{~g} 4 \mathrm{Kf} 37 \mathrm{Kf} 5$ or $6 \ldots \mathrm{Kg} 27 \mathrm{Kg} 6$ ) 6 Kf 5 ( 6 g 3 ? even loses after $6 . . \mathrm{Kf} 27 \mathrm{Kf} 5 \mathrm{Kf} 38 \mathrm{Kg} 6 \mathrm{Kg} 29 \mathrm{Kh} 5$ Kh 3 ) and now both $6 \ldots \mathrm{Kf} 2$ and $6 \ldots \mathrm{~g} 3$ ! (simplest) $7 \mathrm{~h} \times \mathrm{g} 3 \mathrm{Kf} 2$ draw. Note that Black could not play ...g4 any earlier as he had to wait for White to commit his king to the fo square on the f-file.
(B) 1 Kb 6 ? Kb3! (the reasoning is exactly the same as in A) 2 Kc 6 $\mathrm{Ke} 33 \mathrm{Kd} 6 \mathrm{Kd} 34 \mathrm{Ke} 6 \mathrm{Ke} 35 \mathrm{Kf6} \mathrm{~g} 4$ ! and draws as before. So we come to the correct move

$$
1 \mathrm{~g} 4!\quad \text { Ka3! }
$$

White is aiming to move over to the kingside, so $1 . . \mathrm{Kb} 32 \mathrm{~Kb} 5$ or $1 \ldots \mathrm{~Kb} 22 \mathrm{~Kb} 6$ falls in with White's wishes.

## 2 Ka5!

White still cannot move to the b-file as 2 Kb 6 ? Kb4 or 2 Kb 5 ? Kb 3 allows Black to draw.

If $2 \ldots \mathrm{~Kb} 3$ then of course 3 Kb 5 , but if $2 \ldots \mathrm{~Kb} 2$ White must be careful not to play 3 Kb 4 ? when $3 . . \mathrm{Kc} 24 \mathrm{Kc} 4 \mathrm{Kd} 25 \mathrm{Kd} 4 \mathrm{Ke} 26 \mathrm{Ke} 4 \mathrm{Kl} 2$ forces 7 Kf 5 and $7 \ldots \mathrm{Kf} 3$ draws. The right reply $102 \ldots \mathrm{~Kb} 2$ is 3 Kb 6 ! and if $3 \ldots \mathrm{~Kb} 34 \mathrm{~Kb} 5$. With regard to $2 \ldots \mathrm{Ka} 2$ White is faced with a problem-how is he ever to move on to the b-file without losing the opposition? At first sight 3 Ka 4 seems to be the answer, but this allows $3 \ldots \mathrm{~Kb} 24 \mathrm{~Kb} 4 \mathrm{Kc} 2$, which draws, as we saw above. The solution is rather surprising.

## 3 Kb6! Kb3

The position after $3 \ldots \mathrm{~Kb} 2$ is a win for White whoever is to move! With White to play, for example, $4 \mathrm{Kcb} \mathrm{Kc} 2(4 \ldots \mathrm{Kc} 35 \mathrm{Kc} 5) 5 \mathrm{Kd} 6$ Kd 26 Ke 6 Ke 27 Kf 6 Kf 28 Kg 6 Kf 3 and now $9 \mathrm{Kh} 5!\mathrm{Kf} 410 \mathrm{~h} 3 \mathrm{Kg} 3$ $11 \mathrm{~K} \times \mathrm{h} 6 \mathrm{Kh} 412 \mathrm{Kg} 6$ wins. Summing up, b6 v b2 is a win whoever moves, b 4 v b2 is a draw whoever moves, while with b5 $v \mathrm{~b} 3$ the result depends on who moves first, i.e. it is a position of mutual zugzwang.

## 4 Kb5

Not 4 Kc 6 ? Kc4 or $4 \mathrm{Kc5}$ ? Kc3.

| 4 | $\ldots \mathrm{~Kb} 2$ |
| ---: | ---: |
| $5 \mathrm{Kc6}$ | Kc 3 |
| $6 \mathrm{Kc5}$ | Kc 2 |
| $7 \mathrm{Kd6}$ | Kd 3 |
| $8 \mathrm{Kd5}$ | Kd 2 |
| 9 Ke | Ke 3 |
| 10 Ke 5 | Ke 2 |
| $11 \mathrm{Kf6}$ | $\mathrm{Kf3}$ |
| $12 \mathrm{Kf5}$ | Kg 2 |
| 13 Kg 6 |  |

winning, e.g. 13...Kh3 14 Kh 5 or $13 \ldots \mathrm{Kf} 314 \mathrm{Kh} 5 \mathrm{Kf} 415 \mathrm{~h} 3$ as above.
The following example is taken from an adjourned game in the England-Poland match from the 1978 Olympiad. It too features subtle opposition play, although most of this is in the analysis rather than the game.

At first we were optimistic about the chances of winning this position. White has the straightforward plan of $\mathrm{Ke} 2-\mathrm{d} 3$ followed by c 3 , creating an outside passed pawn. But it soon became clear that there were many difficulties in the execution of this plan.

| $1 \mathrm{Ke2}$ | Ke6 |
| :--- | :--- | :--- |
| 2 Kd 3 | Kd7! |

We discovered this move at about 2 a.m.--up to that point we had thought White could force a queen and pawn ending in which White had some winning chances. The other lines are:
(A) $2 \ldots \mathrm{Kd} 6$ (the worst of the three moves) $3 \mathrm{Kd4} 4 \mathrm{Kc6}$ ( $3 . . \mathrm{Ke} 64$ $\mathrm{Kc} 5 \mathrm{Kc} 55 \mathrm{~K} \times \mathrm{b} 4 \mathrm{Kd} 46 \mathrm{c} 4$ is hopeless) $4 \mathrm{Ke} 5 \mathrm{Kc} 55 \mathrm{~K} \times \mathrm{f} 4$ ( 5 Kf 6 Kd 6 only draws, since the king ends up bottled in on the h-file) Kd 46 g 4 $\mathrm{Kc} 37 \mathrm{Ke} 5 \mathrm{~K} \times \mathrm{c} 2(7 \ldots \mathrm{~d} 48 \mathrm{f} 4 \mathrm{~d} 39 \mathrm{c} \times \mathrm{d} 3 \mathrm{~K} \times \mathrm{b} 310 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 511 \mathrm{~g} 5 \mathrm{Kc} 2$ $12 \mathrm{~g} 6 \mathrm{~b} 313 \mathrm{~g} \times \mathrm{h} 7 \mathrm{~b} 214 \mathrm{~h} 8=\mathrm{Q}$ b1 $=\mathrm{O} 15 \mathrm{Qc} 8+\mathrm{Kd} 2$ and now White should win with either 16 h 7 or $16 \mathrm{Q} \times \mathrm{f} 5) 8 \mathrm{f} 4 \mathrm{~K} \times \mathrm{b} 3(8 \ldots \mathrm{~d} 49 \mathrm{~K} \times \mathrm{d} 4$ $\mathrm{K} \times \mathrm{b} 310 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 5 \mathrm{fl} \mathrm{g} \times \mathrm{f} 5$ and wherever Black puts his king White can exchange queens after both sides promote) $9 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f5}$ (after any other move White can capture on $g 6$ and h 7 to obtain two connected passed pawns on the kingside in the queen ending) $10 \mathrm{~g} 5 \mathrm{Kc} 2(10 \ldots$ f4 $11 \mathrm{~K} \times \mathrm{f} 4$ and now Black must play $11 \ldots \mathrm{Kc} 4$, to avoid a queen exchange or promotion with check, but White still wins by 12 Kc 3 $\mathrm{Kc} 313 \mathrm{~g} 6 \mathrm{~d} 4+14 \mathrm{Kc} 2 \mathrm{~b} 315 \mathrm{~g} \times \mathrm{h} 7 \mathrm{~h} 216 \mathrm{~h} 8=\mathrm{Q} \quad \mathrm{bl}=\mathrm{O} 17 \mathrm{Oc} 8+$, followed by the exchange of queens, or $14 \ldots \mathrm{~d} 3+15 \mathrm{Kdl}$, when White promotes with check) $11 \mathrm{~g} 6 \mathrm{~b}^{3}+12 \mathrm{~g} \times \mathrm{h} 7 \mathrm{~b} 213 \mathrm{~h} 8=\mathrm{Obl}=\mathrm{O} 14 \mathrm{Qc} 8+$ Kd2 15 h 7 and White should win, since the Black pawns interfere with Black's attempts to give perpetual check, e.g. $15 . . \mathrm{Oe} 4+16 \mathrm{Kd} 6$ Qb4/f4+ $17 \mathrm{Kd7}$ Qa4+ (17...Ob5 + 18 Oc6 Ob8 $19 \mathrm{Oh}++$ ) 18 Ke6 Qe4+ $19 \mathrm{Kf7}$ and wins.
(B) $2 \ldots$ Ke5 (somewhat better than A. but still not a clear-cut draw) $3 \mathrm{c} 3 \mathrm{~b} \times \mathrm{c} 34 \mathrm{~K} \times \mathrm{c} 3 \mathrm{Kd} 6$ (not $4 \ldots \mathrm{Ke} 65 \mathrm{~Kb} 4 \mathrm{Kdo} 6 \mathrm{~Kb} 5$ winning the d-pawn) 5 Kd 4 Kc6 6 Kc 5 ! (best, as $6 \mathrm{~b} 4 \mathrm{~Kb} 57 \mathrm{~K} \times \mathrm{d} 5 \mathrm{~K} \times \mathrm{b} 4$ would
effectively transpose to the game) $\mathrm{Kc} 57 \mathrm{~K} \times \mathrm{f} 4 \mathrm{Kd} 48 \mathrm{~b} 4 \mathrm{Kc} 49 \mathrm{Ke} 5$ ( 9 Ke 3 allows an immediate draw by $9 \ldots \mathrm{Kc} 310 \mathrm{Ke} 2 \mathrm{Kc} 211 \mathrm{Ke} 3$ Kc 3 ) d4 $10 \mathrm{~b} 5 \mathrm{~d} 311 \mathrm{~b} 6 \mathrm{~d} 212 \mathrm{~b} 7 \mathrm{dl}=\mathrm{Q} 13 \mathrm{~b} 8=\mathrm{Q} \mathrm{Qd} 4+$ (it is better to pick up the h-pawn than the g-pawn, since 13...Qe2 + allows the White king to head for the h-pawn) $14 \mathrm{Ke} 6 \mathrm{Qe} 3+15 \mathrm{Kf7} \mathrm{O} \times \mathrm{h} 616$ Qc5! and White still has some winning chances, as the Black king is cut off, his queen is very passive and the White king is ideally placed for attacking the enemy pawns. Black should draw objectively, but he must still be careful.
$2 \ldots \mathrm{Kd} 7$ holds the draw in the king and pawn ending, so is the better move.

| 3 c 4 | $\mathrm{~b} \times \mathrm{c} 3$ |
| :--- | :--- |
| $4 \mathrm{~K} \times \mathrm{c} 3$ | $\mathrm{Kc} 6!$ |

4...Kd6 transposes to B.

| $5 \mathrm{Kd4}$ | Kd6 |
| :--- | :--- |
| $6 \mathrm{b4}$ | Kc6 |
| $7 \mathrm{Ke5}$ | Kb5 |
| $8 \mathrm{~K} \times \mathrm{d} 5$ | K $\times$ b4 |
| $9 \mathrm{Ke5}$ | Kc5 |
| $10 \mathrm{~K} \times \mathrm{f4}$ |  |

$10 \mathrm{Kf6} \mathrm{Kd6}$ offers no chances at all for a win.


It took some hours of analysis by Mestel, Speelman and myself to discover if this was the only move to draw and since during this period our opinions changed three times, I can only hope that the right answer has been reached!

First we shall look at a related position, which is itself of independent interest.


White to play. What result? At first sight this seems a sure draw, since 1 Kb 6 Kd 6 achieves nothing, while $1 \mathrm{~g} .3 \mathrm{~g} 5!2 \mathrm{~g} 4(2 \mathrm{f} 4 \mathrm{~g} \times \mathrm{f} 4$ and 3...Ke6 takes both pawns) Kd6 $3 \mathrm{Kc8} \mathrm{Kc} 6$ ! blocks the White king in indefinitely on the 8th rank. But White can win with the apparently irrelevant

## 1 Kb 8 !

Not 1 f 4 ? Ke6 (forces White to give up his reserve tempi) 2 g 4 ( 2 Kc 6 Kf5 3 g 3 g 5 ) Kf7, regaining the opposition and reaching a drawn position which occurred later on in the game itself.

## 1 ...g5

If $1 \ldots \mathrm{Kd} 82 \mathrm{f} 4!\mathrm{Ke} 7(2 \ldots \mathrm{Kd} 73 \mathrm{~g} 4$ threatens $4 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 55 \mathrm{~g} 5$, and so Black is forced to retreat on to the e-file by $3 \ldots \mathrm{Ke7}$, when White gains the opposition and wins by 4 Kc 7 Ke 85 Kd 6 Kf 86 Ke 6 Ke 8 $7 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 58 \mathrm{~g} \times \mathrm{f} 5 \mathrm{Kf} 89 \mathrm{Kf6}$ ) $3 \mathrm{Kc} 7 . \mathrm{g} 5(3$ ( $3 . \mathrm{Ke} 64 \mathrm{Kd} 8 \mathrm{~g} 55 \mathrm{~g} 3) 4 \mathrm{~g} 3$ $\mathrm{g} \times \mathrm{f} 4$ (it makes no difference if Black postpones this exchange) 5 $\mathrm{g} \times \mathrm{f} 4 \mathrm{Kf} 66 \mathrm{Kd} 6$ ! (a useful position to remember-it is one of mutual zugzwang) Kf7 ( $6 . . \mathrm{Kff} 7 \mathrm{Ke} 7 \mathrm{~K} \times f 48 \mathrm{Kf} 6$ ) $7 \mathrm{Kd} 7 \mathrm{Kf6}$ (7...Kf8 8 Ke6) 8 Ke8 Ke6 $9 \mathrm{Kf} 8 \mathrm{Kf6} 10 \mathrm{Kg} 8 \mathrm{Kg} 611 \mathrm{f} 5+$ and wins.

$$
2 \mathrm{~Kb} 7 \quad \mathrm{~g} 4
$$

Or else Black must allow the White king on to the e-file. which only makes his position worse.

$$
3 \mathrm{f} \times \mathrm{g} 4^{4}
$$

Not 3 f 4 g 3 .
$\mathbf{3}$
$\mathbf{4 K c} 7 \quad \ldots$

White s objective is to force Black to take the h-pawn without expending his reserve tempo by playing g3.

6 Kd 7 (not 6 Ke 8 ? $\mathrm{Kg} 67 \mathrm{Ke} 7 \mathrm{~K} \times$ h6 and alas $8 \mathrm{Kf6}$ is stalemate) $\mathrm{Kf7}$ 7 Kd6 Kf6 8 Kd5 Kf7 9 Ke5 (now Black must take the h-pawn or White defends his pawns with Kf4 and g5) Kg6 $10 \mathrm{Kf} 4 \mathrm{~K} \times \mathrm{h} 611 \mathrm{Kf5}$ Kg 712 Kg 5 (with the pawn on g 3 instead of g 2 this position is a draw) Kf7 ( $12 \ldots \mathrm{~h} 6+13 \mathrm{Kh} 5$ and 14 g 5 ) $\mathbf{1 3} \mathbf{K h 6} \mathbf{K f 6}$ ( $13 \ldots \mathrm{Kg} 814 \mathrm{~g} 5$ and 15 g 6$) \mathbf{1 4} \mathrm{g} 3$ ! reaching a position of mutual zugzwang with Black to move. Next move White just captures the h-pawn.

On the basis of the analysis of the previous diagram we felt that White could win in Mestel-Sznapik if Black played $10 \ldots \mathrm{Kd} 6$ instead of $10 \ldots \mathrm{Kd} 4$, as follows:

| 10 | ...Kd6 |
| :--- | ---: |
| 11 Ke4 | Ke6 |
| 12 Kd 4 | Kd6 |

If $12 \ldots$ Kf5 13 Kd 5 Kf 4 (13...Kg5 $14 \mathrm{Ke} 6 \mathrm{~K} \times \mathrm{h} 615 \mathrm{Kf6} \mathrm{Kh} 516 \mathrm{~g} 3$ Kh6 17 g 4 g 518 Kf 5 also wins) $14 \mathrm{Kc} 6 \mathrm{Kg} 315 \mathrm{Kf6} \mathrm{~K} \times \mathrm{g} 216 \mathrm{f} 4 \mathrm{Kt} 3$ $17 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 518 \mathrm{~K} \times \mathrm{f} 5$ and wins.

## $13 \mathrm{Kc} 4 \quad$ Kc6

$13 \ldots$ Ke5 14 Kc 5 is similar to the last note.
14 Kb4 Kd6
After 14...Kb6 $15 \mathrm{f} 4 \mathrm{Kc} 616 \mathrm{~g} 4 \mathrm{Kd} 617 \mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 518 \mathrm{~g} 5$ White promotes.

| $15 \mathrm{Kb5}$ | Kd5 |
| :--- | :--- |
| 16 Kb6 | Kd6 |
| 17 Kb 7 | Kd7 |

reaching the previous diagram. However, there is a flaw in this line. At move 14 Black can ignore the dictates of the opposition and launch a counterattack on the White pawns:

$14 \mathbf{K b 5} \quad$| ...Kd5! |
| :---: |
| $155!$ |

$16 \mathrm{~Kb} 6(16 \mathrm{~g} 3 \mathrm{Kd} 4) \mathrm{g} 417 \mathrm{Kc} 7(17 \mathrm{f} \times \mathrm{g} 4 \mathrm{Ke} 518 \mathrm{~g} 3 \mathrm{Kff} 19 \mathrm{Kc} 5 \mathrm{Kg} 5$ $20 \mathrm{Kd} 4 \mathrm{~K} \times \mathrm{h} 621 \mathrm{Ke} 4 \mathrm{Kg} 5$ and 17 f 4 g 3 are fine for Black) g 318 Kd 7 Kd 419 Ke6 Ke3 20 f 4 ( 20 Kf 6 is rather unwise!) $\mathrm{K} \times \mathrm{f} 421 \mathrm{Kf} 6 \mathrm{Ke} 3$ 22 Kg 7 Kf 2 and the game peters out to $\mathrm{Q} \vee \mathrm{Q}$.

So the final verdict is that both 10 .. Kd6 and $10 \ldots \mathrm{Kd} 4$ draw. Returning to the position of diagram 122a we may continue the game:

$$
10 \text {...Kd4! }
$$

White must give up his reserve tempo to extricate his king and this makes Black's defensive task much easier.

| 11 Kg 5 | Ke5 |
| :--- | :--- |
| $12 \mathrm{g3}$ | Ke6 |
| $13 \mathrm{Kf4}$ | Kf6 |
| 14 Ke 4 | Ke6 |
| $15 \mathrm{Kd4}$ | Kd6 |
| $16 \mathrm{Kc4}$ | Kc6 |
| $17 \mathrm{f4}$ |  |

Now that the 13 pawn is subject to attack there is no point in an outflanking manocuvre, e.g. $17 \mathrm{~Kb} 4 \mathrm{Kd5} 18 \mathrm{~Kb} 5 \mathrm{~g} 5$, followed by ...Kd4-e3.

| 17 | g4 |
| :--- | :--- |
| 18 Kd |  |

Again, if 18 Kb 5 Ke 619 Kc 5 (19 g4 Kf7 transposes to the game) g5! and Black draws without difficulty.

18 ...Ke6
Although Black is now constrained to keep his king on the e-file or further right by the threat of $\mathrm{f} 5 \mathrm{~g} \times \mathrm{f} 5 \mathrm{~g} 5$, Black has only to keep the (distant) opposition to draw, since White has no tempo moves. The game concluded 19 Kc 3 Ke 7 (the only correct square) 20 Kd 4 Kf 6 21 Kc5 Ke7 22 Kb5 Kf7 23 Kc5 Ke7 24 Kd5 Kf7 25 Ke4 Ke6 26 Kf3 Kf7 $27 \mathrm{Kg} 3 \mathrm{Ke} 728 \mathrm{Kf} 2 \mathrm{Kf} 629 \mathrm{Ke} 3 \mathrm{Ke} 730 \mathrm{Kd} 4 \mathrm{Kf6} 31 \mathrm{Kd5} \mathrm{Kf} 732$ Kd6 Kf6 33 Kd7 Kf7 34 f5 $\mathrm{g} \times \mathrm{f} 535 \mathrm{~g} \times \mathrm{f} 5 \mathrm{Kf6} \frac{1}{2}-\frac{1}{2}$.

## 12 Studies

There are studies sprinkled throughout this book, so it might seem redundant to have a separate chapter devoted to them. The main reason is that there were a number of studies which I felt had to be included in the book, but which did not easily fall under any of the headings of the earlier chapters. I have tended to choose studies which have natural positions and all except one of the positions in this chapter fall under this heading. There is a wealth of interesting tactical play and I hope that the reader will play through the solutions or, if ambitious, try to solve them.

T. Gorgiev, 2nd Pr., Shakhmaty 1929

With only six pieces on the board there are a number of surprising tactical turns before White finally wins. The material balance normally leads to a draw, so White must act at once.

| $18 \mathrm{Bf6}+$ | Kh7 |
| :--- | :--- |
| $2 \mathrm{Rg} 7+$ | Kh6 |

Forced, because $2 \ldots \mathrm{Kh} 83 \mathrm{R} \times \mathrm{e} 7+\mathrm{Kg} 84 \mathrm{Re} 8+$ wins.

$$
3 \text { Rf7! Kg6 }
$$

The only move, as White threatened $4 \mathrm{~B} \times \mathrm{e} 7 \mathrm{Kg} 65 \mathrm{Rf} 6+$ and if 3...Nc6 $4 \mathrm{~B} \times \mathrm{d} 8 \mathrm{~N} \times \mathrm{d} 85 \mathrm{Rd} 7$ picks up the knight next move.

## 4 Ri8

If one looks at this position it is clear that all Black's available moves lose a piece, but despite this unusual zugzwang Black can still fight on.

| 4 | ...Nc6! |
| :---: | :---: |
| $5 \mathrm{~B} \times \mathrm{d} 8$ | Kg7 |

With the idea of a perpetual attack on the White rook, which is restricted to the four squares along the eighth rank. But there is just one way out?

| 6 Re8 | Kf7 |
| :--- | :--- |
| 7 Rh8 | Kg7 |
| 8 $\mathbf{~ B f 6 + 1}$ |  |

and wins, since White emerges with a whole extra rook.
The following is one of the most famous endgame studies ever composed, but nevertheless it may be new to some people.

D. Joseph, British Chess Magazine 1922

In fact this is not the position originally published by Joseph, but a version by an unknown Czechoslovak composer which appeared in Ceskoslovenska Republika in 1923.

$$
1 \mathrm{~b} 6+\text { ! }
$$

$1 \mathrm{~b} \times \mathrm{a} 6$ ? b5 certainly loses after a skewer, while 1 h 4 ? $\mathrm{a} \times \mathrm{b} 5$ reaves White on the worse side of $Q+b P \vee Q$. At first sight $1 b 6+$ ends the game, since Black's b-pawn is blocked and White's promotion on h8 stops Black promoting on al.

$$
1 \quad \text {...Kb8! }
$$

Playing for stalemate.

$$
2 \text { h4 a5 }
$$

| $3 \mathrm{h5}$ | $\mathrm{a4}$ |
| :--- | :--- |
| $4 \mathrm{h6}$ | $\mathrm{a3}$ |
| $5 \mathrm{h7}$ | a 2 |
| $6 \mathrm{h8}=\mathrm{Q}$ |  |

After $6 \mathrm{~h} 8=\mathrm{B}$ ? $\mathrm{al}=\mathrm{Q} 7 \mathrm{~B} \times \mathrm{al}$ Black can be stalemated but he can never be driven out of the corner, so the position is a draw.

$$
\begin{equation*}
\ldots a l=Q \tag{6}
\end{equation*}
$$

Now the real battle starts. White must move his queen, but where? The only winning chance is to play the queen along the eighth rank to threaten mate by moving the king.

## 7 Qg8!

Not 7 Qf8? Qa3! and White must abandon the eighth rank, since Black intends $8 \ldots \mathrm{Od} 6+$ and $9 \ldots \mathrm{Q} \times$ b6. Also, if 7 Qe8? Og7! and White is in zugzwang.

$$
8 \text { Qe8! } \quad . . \mathrm{Qa} 2
$$

Now this move is possible as Black cannot confine the king.

$$
8 \text {...Qa4 }
$$

White can now reveal the point of playing the queen to e8.

$$
\begin{aligned}
& 9 \text { Qe5+! Ka8 } \\
& 10 \text { Qh8 }
\end{aligned}
$$

and wins, since Black has been deprived of his stalemate defence.
The next study depends for its effect on the astonishing final position.


With both bishops attacked White's lirst move is certainly forced.

## 1 Rd8 <br> a2!

If $1 \ldots$ Rf4 +2 Ke3 ( 2 Ke5? a2, when both $3 \mathrm{~B} \times \mathrm{a} 2 \mathrm{Ra} 44 \mathrm{Bb} 3 \mathrm{Rb} 4$ and 3 Ra8 Rf5 + $4 \mathrm{Ke} 6 \mathrm{Rf} 85 \mathrm{Ra} 4+\mathrm{Kh} 36 \mathrm{Bi7} \mathrm{a}=\mathrm{Q}$ lead to a draw) Ra4 (2...Rf3 + 3 Ke 2 or $2 \ldots \mathrm{a} 23 \mathrm{Ra} 8 \mathrm{Rf} 84 \mathrm{Ra} 4+\mathrm{Kh} 55 \mathrm{~B} \times \mathrm{a} 2$ ) 3 Bf6 and 4 Rdl stopping the pawn.
$2 \mathbf{B} \times \mathbf{a 2} \quad \mathbf{R f 4 +}$
3 Ke3!

3 Ke5? Iransposes to the note to Black's lirst move.
3 ...Ra4
Not 3...Rf3+4 Ke2Ra3 $5 \mathrm{Rd} 4+$, defending the bishop on h 4 with gain of tempo.

## 4 Bb3 Rb4

If $4 \ldots \mathrm{Ra} 35 \mathrm{Rd} 4+$ and 6 Rb 4 wins. After $4 \ldots \mathrm{Rb} 4$ it seems that White has exhausted his resources and must lose one of the bishops.

$$
\begin{aligned}
& \mathbf{5} \mathrm{Rd4}+!! \\
& \text { 6 } \mathrm{Be} 7
\end{aligned}
$$

An amazing position! The rook is trapped in mid-board, e.g. 6...Rf4 7 Be6+ Rf5 (7...Kg3 8 Bd6) 8 Ke4, or $6 \ldots$ Rd7 7 Be6 + . The move $5 \mathrm{Rd} 4+$ is very hard to see when solving this study, because one just doesn't realise it is possible for two bishops to trap a rook.

L. Kubbel, Ist Pr, 641925

This looks almost like a middle-game position from an over-theboard encounter. Material is nearly balanced, but in view of the advanced a-pawn White must press his attack home with all possible speed.

## 1 Rg6

The only reasonable move, since $1 \mathrm{Qf5}+\mathrm{Nf6} 2 \mathrm{R} \times \mathrm{f6}+\mathrm{e} \times \mathrm{f} 6.3 \mathrm{Q} \times \mathrm{f6}$ I Kg 8 is only perpetual check.

$$
1 \text {...Nf6 }
$$

If $1 \ldots$ Kf7 2 Qf5 + Nf6 $3 \mathrm{R} \times \mathrm{f} 6+\mathrm{e} \times \mathrm{ff} 64 \mathrm{Qh} 7+$ transposes to the main line, while $1 \ldots \mathrm{~B} \times \mathrm{f} 4+(1 \ldots \mathrm{Bel}+2 \mathrm{Kd} 3$ only makes matters worse for Black) $2 \mathrm{Q} \times \mathrm{f} 4+\mathrm{Nf} 63 \mathrm{Qh} 6+\mathrm{K} 174 \mathrm{Rg} 7+\mathrm{Ke} 65 \mathrm{Qc} 3+$ and mates in three more moves is no better.

$$
2 \text { Qh6+ Kf7 }
$$

After $3 \mathrm{Rg} 7+\mathrm{Ke} 64 \mathrm{f} 5+\mathrm{Kd} 6$ the Black king escapes, but White has a better move.

| $3 \mathrm{R} \times \mathrm{f} 6+$ ! | $\mathrm{e} \times \mathrm{f} 6$ |
| :--- | :--- |
| $4 \mathrm{Qh} 7+$ | Ke6 |
| $5 \mathrm{f5}+$ | Kd6 |
| $\mathbf{6} \mathrm{c5}+$ | Kd5 |

All forced up to here. But now how is White to continue? If 7 Kd 3 $\mathrm{Qa} 6+$ or $7 \mathrm{Qd} 7+\mathrm{Kc4}$, and in both cases Black wins.

$$
\begin{aligned}
& 7 \mathrm{Qg} 8+! \\
& 8 \mathrm{Kd} 3
\end{aligned}
$$

followed by 9 c 4 mate. An excellent combination!
The next study comes as a complete change after such violence.


White only needs to get his rook to the eighth rank to finish the game, but this is more difficult than it might seem. There is a threat of $1 \ldots \mathrm{Be} 4+$ ! which either forces stalemate or wins the pawn on h 7 . after which the game would be a clear draw, since Black has the
'right' bishop, i.e. one of the opposite colour to the corner square. To defend against this threat, the only moves which come into consideration are 1 Ra 7 and moves of the White king. But if 1 Ra 7 $\mathrm{Be} 4+2 \mathrm{Kh} 6 \mathrm{Bb} 7!3 \mathrm{Kg} 6$ (if 3 Ra , for instance, $3 \ldots$ Be 4 forces the rook to return) $\mathrm{Be} 4+4 \mathrm{Kf} 7 \mathrm{Bg} 6+$ draws; 1 Kh 6 Be 42 Ra 7 Bb 7 is the same, while $1 \mathrm{Kh} 5 \mathrm{~K} \times \mathrm{h} 7$ and $1 \mathrm{Kf} 7 \mathrm{Bd} 5+2 \mathrm{Kg} 6 \mathrm{Be} 4+$ are simple draws. Two slightly more difficult lines are $1 \mathrm{Kf5} \mathrm{Bc} 62 \mathrm{Rh} 4$ (2 Ra7 $\mathrm{Be} 4+$ ) Bb 5 (intending 3...Bd3, with or without check) 3 Ke 4 Be 84 Rh6 (4 Kf5 Bg6+) Ba4 $5 \mathrm{Kd3}$ ( 5 Rh 2 Be 8 forces 6 Rh 6 again) Bd7 6 Rh 5 Be 8 , with a draw by repetition, and $1 \mathrm{K1} 6 \mathrm{Bc} 62 \mathrm{Rc} 4$ (2 Ra7 Be4 or $2 \mathrm{Rh} 4 \mathrm{Bb} 53 \mathrm{Rh} 3 \mathrm{Ba4}$, with a similar draw to that after $1 \mathrm{Kf5}$ ) Bb5 $3 \mathrm{Rb} 4 \mathrm{Bd} 34 \mathrm{Kf} 7 \mathrm{Bg} 6+$ draw. So we finally come to the only winning move.

## 1 Kg5!!

White avoids annoying checks and at the same times stays within range of the important h6 square.

$$
1 \text {...Bc6 }
$$

White is trying to move his rook off the a-file with gain of tempo and then play Kh6. So $1 \ldots \mathrm{Bf} 32 \mathrm{Rt} 4$ and 3 Kh 6 or $1 \ldots \mathrm{Bd} 52 \mathrm{Rd} 4$ and 3 Kh6 allow White to achieve this at once, while $1 \ldots \mathrm{Bg} 22 \mathrm{Rg} 4 \mathrm{Bc} 6$ (2...Bh3 3 Rd4 and 4 Kh6) 3 Kh6 Bd5 4 Rd4 wins. Finally 1...Bb7 $2 \mathrm{Rf} 4!\mathrm{Kg} 7$ (or else 3 Kh ) $3 \mathrm{Rf} 7+\mathrm{Kh} 84 \mathrm{Kh} 6$ wins.

| $\mathbf{2} \mathbf{R e 4}$ | $\mathbf{B b 5}$ |
| :--- | :--- |
| $\mathbf{3} \mathbf{R c} 7$ | $\mathrm{Ba4}$ |
| 4 Kh6 | Bd 7 |
| $\mathbf{5} \mathbf{R a 7}$ |  |

and now $5 \ldots \mathrm{Bc} / \mathrm{c} 86 \mathrm{Rf} 7$ and $5 \ldots \mathrm{Be} 86 \mathrm{Rb} 7$ both lead to mate.
The Mitrofanov study which follows admittedly has an unnatural initial position, but this is more than compensated for by the spectacular play.


If at once 1 g 7 then $1 \ldots \mathrm{Bc} 7+$ prevents the Black king from being driven on to the back rank and wins.

$$
1 \mathrm{~b} 6+\quad \mathrm{Ka8}
$$

Black must be able to interpose the bishop on b8 after $2 \mathrm{~g} 7 \mathrm{hl}=\mathrm{O}$ $3 \mathrm{~g} 8=\mathrm{Q}+$, so $1 \ldots \mathrm{~Kb} 8$ would be a mistake.

## 2 Rel!

If at once $2 \mathrm{~g} 7 \mathrm{~h} 1=\mathrm{Q} 3 \mathrm{~g} 8=\mathrm{Q}+\mathrm{Bb} 8$ white is unable to continue with a quiet move, due to the threat of $4 \ldots \mathrm{Qal}+$. The purpose of 2 Re 1 ! is to block the queen's path from h1 to al.

| 2 | $\ldots \mathrm{N} \times$ el |
| :---: | :---: |
| 3 g 7 | $\mathrm{h} 1=\mathrm{Q}$ |
| $4 \mathrm{g8}=\mathrm{Q}+$ | Bb8 |
| 5 a 7 |  |

The White queen must continue to guard d 5 , so this is the only effective move. Black's plight seems desperate, as $5 \ldots \mathrm{Nc} 4+6 \mathrm{Ka} 6$ loses at once; but he keeps his hopes alive with a sacrifice.

| 5 | $\mathbf{d \times c 6}$ |
| :--- | :--- |
| $\mathbf{N c 6 + !}$ |  |
| $\mathbf{Q} \times \mathrm{h5}+$ |  |

Now it is White who faces difficulties, as after $7 \mathrm{Ka} 6 \mathrm{Qe} 2+$ Black delivers perpetual check.

$$
7 \text { Qg5!! } \quad \text { Q } \times \mathrm{g} 5+
$$

Black has no choice, for if the queen moves away $8 \mathrm{~b} 7+\mathrm{K} \times \mathrm{a} 79$ Qc5 is mate.

$$
8 \text { Ka6 } \quad \text { B×a7 }
$$

Or $8 \ldots \mathrm{Qa} 5 / \mathrm{b} 5+9 \mathrm{~K} \times \mathrm{a} 5 / \mathrm{b} 5 \mathrm{~B} \times \mathrm{a} 710 \mathrm{c} 7$ wins.
and despite Black's vast material plus he has no defence, e.g. 9... Od5 $10 \mathrm{c} 8=\mathrm{Q}+\mathrm{Bb} 811 \mathrm{~b} 7+$ or $9 \ldots \mathrm{Qa} 5+10 \mathrm{~K} \times \mathrm{a} 5 \mathrm{~Kb} 711 \mathrm{~b} \times \mathrm{a} 7$. It is interesting that without the knight on el Black could draw in the final position by $9 \ldots \mathrm{Qa} 5+10 \mathrm{~K} \times \mathrm{a} 5 \mathrm{~B} \times \mathrm{b} 6+$ forcing stalemate.

The following study, which contains a marvellously subtle move, is one of my personal favourites.


In order to win White must pick up one of the bishops and 1 Re8+ Kb 7 achieves nothing, so White's first move is forced.

$$
1 \mathrm{Bf} 3+\quad \mathrm{Ka} 7
$$

Not $1 \ldots \mathrm{~Kb} 82 \mathrm{Rb} 2$. After $1 \ldots \mathrm{Ka} 7$ it is tempting to try $2 \mathrm{Rc} 8(2 \mathrm{Rc} 7+$ Ka6 helps Black), attacking the hishoprand threatening Ra8+ followed by Rb8+. But after 2...Bd6 3 Rc3 (3 Rc6 Bf4) Ba4. Black has consolidated his scattered pieces. The correct plan is first to chase the other bishop.

$$
2 \mathrm{Rc} 3 \quad \text { Be6 }
$$

The lines $2 \ldots \mathrm{Ba} 2 / \mathrm{a} 43 \mathrm{Rc} 8$ and $4 \mathrm{Ra}+, 2 \ldots \mathrm{Br} 73 \mathrm{Rc} 7+$ and $2 \ldots \mathrm{Bg} 8$ 3 Rc 8 are elementary, so Black's move was forced.

$$
\mathbf{3} \text { Rc6 } \quad \text { Bb3 }
$$

The only new line to add to those above is $3 \ldots$ B15 4 Rff. Now White has improved the position of his rook, but where can he go from here? 4 Rc 8 transposes to the note to Black's first move, while there is nothing else obviously constructive. But suppose it were Black to move in this position. The lines $4 \ldots \mathrm{Ba} 35 \mathrm{Rc} 3$ and $4 \ldots \mathrm{Be} 7 / \mathrm{g} 75 \mathrm{Rc} 7+$ show that Black would have to play $4 \ldots$ Bb4 . But then White can exploit the line-up by 5 Rcl , and if $5 \ldots$ Be6 $6 \mathrm{Rc} 7+$ or $5 \ldots \mathrm{Bd} 6 / \mathrm{f} 86$
$\mathrm{Ral}+$ and 7 Rb 1 or, finally, $5 \ldots \mathrm{Ba} 56 \mathrm{Ra} 1 \mathrm{Ka} 67 \mathrm{Be} 2+\mathrm{Kb} 68 \mathrm{Rb} 1$, and in each case Black loses a piece, so the move $5 \ldots \mathrm{Bg} 8$ would be forced. Alas, then White has no further continuation, c.g. $6 \mathrm{Rc} 7+$ Kb6 or 6 Re8 Be6 7 Re6 Bf5, but we must remember that White had a spare tempo at move 4. By an imaginative leap, we can see that if the White king were not obstructing the g-file White could continue to harry the bishop by 6 Rg 1 and a short check- $-\ldots$...Bc4 7 Rg 4 , $6 \ldots$ Be6 $7 \mathrm{Rg} 7+$ and 8 Rg 6 , and $6 \ldots \mathrm{Bb} 37 \mathrm{Rb} 1$ shows that this does in fact work. So, returning to the position before White's 4th move, we have only to move the king off the g-file in such a way as to not expose it to check at any point. Thus the right move is. . .

## 4 Kh1!!

Giving a position of autual zugzwang! If it were White to move he could not move rook or bishop without giving a vital extra square to Black's bishops (e.g. d6 or d1), while a king move would cither allow a check or block the $g$-file, when ...Bb4 would draw.

| 4 | $\ldots$ Bb4 |
| :--- | :--- | ---: |
| 5 Rc 1 | Bg8 |
| 6 Rg1 | Be6 |
| $7 \mathrm{Rg} 7+$ |  |

and $8 \mathrm{Rb} 7+$ or 8 Rg 6 will pick up a piece.
To end this chapter, here is a game position which could almost be mistaken for a composed study.


Ortueta-Sarz, Madrid 19.34
Black initiates a very attractive and well-calculated combination designed to activate his queenside pawns.

| 1 |  |
| :--- | :--- |
| $2 \mathrm{~N} \times \mathrm{b} 2$ | $\underset{\mathrm{c} 3}{ } \mathrm{R} \times \mathrm{b} 2!!$ |

If now $3 \mathrm{Nd} 3 \mathrm{c} 4+4 \mathrm{R} \times \mathrm{b} 6 \mathrm{c} \times \mathrm{d} 3$ and the two connected pawns
triumph. Since $3 \operatorname{Re} 7 \mathrm{c} \times \mathrm{b} 24 \mathrm{Rel} \mathrm{c} 4+$ is hopeless, White's move is forced.

## $3 \mathbf{R} \times \mathbf{b 6}$

To reply 4 Nd 3 to either $3 \ldots \mathrm{a} \times \mathrm{b} 6$ or $3 \ldots \mathrm{c} 2$.

$$
3 \text {...c4! }
$$

Black threatens $4 \ldots \mathrm{c} 2$, and if $4 \mathrm{~N} \times \mathrm{c} 4 \mathrm{c} 2.5 \mathrm{Rc} 6 \mathrm{cl}=\mathrm{O}+6 \mathrm{Kf} 2 \mathrm{Qf} 4+$ $7 \mathrm{Kgl} \mathrm{Qe4!} \mathrm{threatens} \mathrm{mate} \mathrm{and} \mathrm{attacks} \mathrm{the} \mathrm{rook}$. move to defend against ...c2.
$4 \mathbf{R b 4} \quad$ a5!
The whole combination runs like clockwork-whichever way the rook moves the pawn promotes on cl or bl.

$$
5 \mathrm{Na} 4 \quad \mathrm{a} \times \mathrm{b} 4
$$

0-1

## 13 Practical examples

In the previous chapters we have usually concentrated on one particular tactical element to the exclusion of all others. But in practice it is rarely so simple. So in this chapter we take a look at some positions from practical games in which many of the elements of earlier chapters are interwoven. Generally the analysis is quite complex, but don't be put off-the positions are all very interesting.


Galvenius--Stone, England 1952

This position arose in a county match between Middlesex and Oxfordshire at adjudication time. The position was given as a win for White and Yanofsky published some analysis in Chess (January [953) supporting this verdict. Later a reader wrote in to suggest that the analysis was incorrect. Who was right? Let's see how Yanotsky's analysis continued.

## 1 g5!

In view of the passive position of his rook, White cannot hope to win by normal means, while 1 Kc 5 ? allows $1 \ldots \mathrm{~K} \times \mathrm{h} 3$ (prevented in the original position because of $2 \mathrm{Ra} 3+$ and 3 Rb 3 ) and Black's three pawns will beat White's rook after White promotes.

$$
1 \quad \ldots \mathrm{f} \times \mathrm{g} 5
$$

Of course not $1 \ldots \mathrm{~K} \times \mathrm{g} 5$ ? $2 \mathrm{Ra} 5+$ and 3 Rb 5 , but the reader claimed that $1 \ldots \mathrm{~h} \times \mathrm{g} 5$ was better. Although the resulting cluster of pawns is
nearer the White king, Black is not troubled by mating threats as in the main line of the analysis. However, White can win, e.g. $1 \ldots \mathrm{~h} \times \mathrm{g} 5$ $2 \mathrm{Kc} 3 \mathrm{Rb} 63 \mathrm{Ra} 4+\mathrm{K} \times \mathrm{h} 34 \mathrm{Rb} 4 \mathrm{R} \times \mathrm{b} 75 \mathrm{R} \times \mathrm{b} 7 \mathrm{f} 56 \mathrm{Rg} 7$ ! (the reader's analysis only considered 6 Kd 3 ? when, after $6 \ldots \mathrm{~g} 4$, both 7 Ke 3 Kg 3 $8 \mathrm{Rg} 7 \mathrm{f} 4+9 \mathrm{Ke} 2 \mathrm{Kg} 210 \mathrm{R} \times \mathrm{g} 6 \mathrm{f} 3+11 \mathrm{Ke} 3 \mathrm{~g} 3$ and 7 Rg 7 Kg 38 $\mathrm{R} \times \mathrm{g} 6 \mathrm{Kf} 2$ ! $9 \mathrm{Rg} 5 \mathrm{~g} 310 \mathrm{R} \times \mathrm{f} 5+\mathrm{Ke} 1$ ! lead to draws-however, 6 Kd 2 probably wins for White since ...Kel in the last line is prevented) g 4 $7 \mathrm{R} \times \mathrm{g} 6 \mathrm{Kg} 3 / \mathrm{g} 2$ (if $7 \ldots \mathrm{~g} 38 \mathrm{Kd} 3$ wins, as the king reaches f2 in time) 8 Kd 2 Kf 2 (or White blockades the pawns with his king) 9 Rg 5 g 3 $10 \mathrm{R} \times \mathrm{f} 5+$ and wins easily.

| 2 Kc 3 | Rb6 |
| :---: | :---: |
| $3 \mathrm{Ra4+}$ | $\mathrm{K} \times \mathrm{h} 3$ |
| $4 \mathrm{Rb4}$ | $\mathbf{R \times} \times{ }^{7}$ |
| $5 \mathrm{R} \times \mathrm{b} 7$ | h5 |

Yanofsky concentrated mainly on $5 \ldots \mathrm{~g} 46 \mathrm{Kd} 3 \mathrm{~g} 3$, when White wins more easily: $5 \ldots \mathrm{~g} 46 \mathrm{Kd} 3 \mathrm{~g} 3$ ( $6 \ldots \mathrm{~h} 57 \mathrm{Ke} 2 \mathrm{~h} 48 \mathrm{Kfl} \mathrm{Kh} 29 \mathrm{Rb} 4$ ! wins quite easily) 7 Ke 2 h 5 (if $7 \ldots \mathrm{Kg} 28 \mathrm{Rh} 7 \mathrm{~h} 59 \mathrm{Rh} 6 \mathrm{Kh} 210 \mathrm{R} \times \mathrm{g} 6 \mathrm{~h} 411 \mathrm{Kf} 3$ Kh3 12 Rh6 g2 13 Rg6 picks up the g-pawn, while $7 \ldots \mathrm{Kh} 28 \mathrm{Kf} 3 \mathrm{~h} 5$ $9 \mathrm{Rb} 2+$ transposes to A below) 8 Kf 3 and now:
(A) $8 \ldots \mathrm{Kh} 29 \mathrm{Rb} 2+\mathrm{Kh} 310 \mathrm{Rb} 5 \mathrm{~h} 4$ ( $10 \ldots \mathrm{Kh} 211 \mathrm{Rg} 5 \mathrm{~h} 4$ transposes) $11 \mathrm{Rg} 5 \mathrm{Kh} 212 \mathrm{R} \times \mathrm{g} 6$ transposes to C .
(B) $8 \ldots \mathrm{~g} 29 \mathrm{Rbl} \mathrm{g} 510 \mathrm{Kf} 2 \mathrm{~g} 4$ (the only defence to 11 Rgl ) $11 \mathrm{Rb} 3+$ Kh 212 Rg 3 winning the pawn.
(C) $8 \ldots \mathrm{~h} 49 \mathrm{Rg} 7 \mathrm{Kh} 210 \mathrm{R} \times \mathrm{g} 6 \mathrm{Kg} 111 \mathrm{Rg} 4 \mathrm{Kf1} 12 \mathrm{Rb} 4 \mathrm{Kg} 113 \mathrm{R} \times \mathrm{h} 4$ g2 14 Rg 4 Kh 115 Kf 2 and wins.
(D) $8 \ldots \mathrm{~g} 59 \mathrm{Rh} 7 \mathrm{~g} 4+(9 \ldots \mathrm{~h} 410 \mathrm{Rg} 7 \mathrm{Kh} 211 \mathrm{R} \times \mathrm{g} 5$ is C again) 10 Ke2 h4 ( $10 \ldots \mathrm{~g} 211 \mathrm{Kf} 2!\mathrm{g} 3+12 \mathrm{Kg} 1$ wins) $11 \mathrm{Rh} 8!\mathrm{g} 212 \mathrm{Kf} 2 \mathrm{~g} 3+$ 13 Kg 1 and Black will lose all his pawns.

## 6 Kd3

6 Kd 2 is just as good.

$$
6 \quad . . . \mathrm{Kg} 2
$$

Black may as well play this at once, since he will sooner or later have to prevent the White king's approach. Yanofsky didn't mention this move in his published analysis.

## 7 Ke2!

White has various tempting paths which fail:
(A) $7 \mathrm{Rg} 7 \mathrm{~h} 48 \mathrm{R} \times \mathrm{g} 6 \mathrm{~h} 39 \mathrm{R} \times \mathrm{g} 5+\mathrm{Kf} 310 \mathrm{Rh} 5 \mathrm{Kg} 211 \mathrm{Ke} 2 \mathrm{~h} 212 \mathrm{Rg} 5+$ Kh 1 is a draw.
(B) $7 \mathrm{Rb} 2+\mathrm{Kf} 38 \mathrm{Kd} 2 \mathrm{Kf} 29 \mathrm{Kd} 1+\mathrm{Kf} 110 \mathrm{Rb} 6 \mathrm{~h} 411 \mathrm{Rf} 6+\mathrm{Kg} 212$ $\mathrm{R} \times \mathrm{g} 6 \mathrm{~h} 313 \mathrm{R} \times \mathrm{g} 5+\mathrm{Kf} 314 \mathrm{Rh} 5 \mathrm{Kg} 215 \mathrm{Ke} 2 \mathrm{~h} 2$ leads to the same draw. (C) $7 \mathrm{Ke} 3 \mathrm{~g} 48 \mathrm{Kf} 4 \mathrm{~g} 5+!9 \mathrm{~K} \times \mathrm{g} 5 \mathrm{~g} 310 \mathrm{Kf} 4(10 \mathrm{Rb} 2+\mathrm{Kh} 1$ and 10 Kh 4 Kh2 are immediate draws) h4! (avoiding the trap $10 \ldots \mathrm{Kh} 2$ ? $11 \mathrm{Rb} 2+$

Kh 312 Kf 3 h 413 Rb 4 g 214 Rg 4 and wins) $11 \mathrm{Rb} 2+$ ( 11 Kg 4 is met by 11...Kh2) Kh3 12 Kf 3 g 2 (playing for stalemate) 13 Rb 1 Kh 214 Kf 2 h 3 and White cannot prevent Black from stalemating himself by $15 \ldots \mathrm{gl}=\mathrm{Q}+$.

$$
7 \text {...g4 }
$$

7...h4 $8 \mathrm{Rb} 4 \mathrm{~h} 39 \mathrm{Rg} 4+\mathrm{Kh} 110 \mathrm{Kf} 2 \mathrm{~h} 211 \mathrm{Rb} 4$ mates.

8 Rh7 g3
8 ...Kg19 Rh6g310 R $\times \mathrm{g} 6 \mathrm{~h} 411 \mathrm{Kf} 3$ wins.

## 9 Rh6!!

This move puts Black in zugzwang. He loses after $9 \ldots \mathrm{Kh} 2(9 \ldots \mathrm{Kg} 110$ Kf 3 ) $10 \mathrm{R} \times \mathrm{g} 6 \mathrm{~h} 4(10 \ldots \mathrm{Kg} 211 \mathrm{Rh} 6) 11 \mathrm{Kf} 3 \mathrm{Kg} 112 \mathrm{Rg} 4 \mathrm{Kfl} 13 \mathrm{Ra} 4 \mathrm{Kg} 1$ 14 Rxh4 g2 15 Rg 4 Kh 116 Kf 2 . The truly astonishing thing about the position after $9 \mathrm{Rh} 6!$ ! is that White could not win if it were his turn to move, so this is a position of mutual zugzwang. The variations are 10 $\mathrm{R} \times \mathrm{g} 6 \mathrm{~h} 4,10 \mathrm{Ke} 3 \mathrm{Kf} 1$ and $10 \mathrm{Ke} 1 \mathrm{Kh} 211 \mathrm{R} \times \mathrm{g} 6 \mathrm{~h} 412 \mathrm{Kf} 1 \mathrm{~h} 313 \mathrm{Rg} 8$ $\mathrm{g} 2+14 \mathrm{Kf} 2 \mathrm{~g} 1=\mathrm{Q}+15 \mathrm{R} \times \mathrm{g} 1$ stalemate.

Thus the adjudicator's verdict was absolutely correct.
Adjudication is one opportunity for detailed analysis, and adjournments are another. Often the sheer number of possibilities prevents one from determining the likely future course of the game, but occasionally it is possible to see accurately a long way ahead, as in the following example.


Hverekilde-Speelman, Teesside 1979
This is from the England-Denmark match of the 1979 Clare Benedict tournament. The position has many middlegame features, but reductions to various types of endings are possible. Black is a rook down but has immediate perpetual check if he wants it. The only question is, can he win?

| 1 | $\cdots \mathrm{Qe} 3+$ |
| :--- | :--- |
| $\mathbf{2 K f 1}$ | $\mathbf{Q} \times \mathrm{h} 3+$ |

This was the sealed move. It makes sense to take the h3 pawn before the d3 pawn (both are doomed) as the White king may escape via d3 if that one is taken first. Most of the English team settled down to analyse the position with Jon Speelman in the two-hour break before the game resumed and to our surprise we were able to determine a lengthy variation which offered White few chances to deviate. This line did in fact occur when the game was resumed, but there was a flaw in the analysis. . .

## $3 \mathrm{Kel} \quad$ Qe3+

Attempting to bring the bishop into the attack at once fails after $3 \ldots \mathrm{Og} 3+4 \mathrm{Ke} 2 \mathrm{Qg} 2+5 \mathrm{Kel} \mathrm{Be} 36 \mathrm{Rbl} \mathrm{B} \times \mathrm{d} 2+7 \mathrm{Kdl}$ ! and the bishop is lost.
$4 \mathrm{Kf1} \quad \mathrm{Q} \times \mathrm{d} 3+$
5 Kel
$5 \mathrm{Kf} 2 \mathrm{Be} 3+6 \mathrm{Kel} \mathrm{Bg} 5$ transposes to the game, while $5 \mathrm{Kg} 1 \mathrm{Be} 3+$ $6 \mathrm{Kh} 1 \mathrm{Qe} 27 \mathrm{Qc} 2 \mathrm{~d} \times \mathrm{e} 4$ leaves White hopelessly tied up.

$$
5 \quad \text {...Bg5! }
$$

After 5...Qg3 + 6 Kfl Be3 7 Oh7 + Kh6 8 Qf7 d3 9 Of8 + White forces a draw, since the attempt to avoid perpetual check by 9 ...Kg 5 10 Qe7 +Kg 411 Qe $6+\mathrm{Kh} 4$ loses to 12 Qf6 +Kh 313 Qf3 B $\times \mathrm{d} 214$ $\mathrm{O} \times \mathrm{g} 3+\mathrm{K} \times \mathrm{g} 315 \mathrm{e} \times \mathrm{d} 5$ with a winning position for White. The move
played not only threatens mate but also gives the Black king a hiding place on h6.

## 6 Ral

Better than $6 \mathrm{Rcl}(6 \mathrm{Rbl}$ ? $\mathrm{B} \times \mathrm{d} 2+$ ), when Black can simply play $6 \ldots \mathrm{~d} \times \mathrm{e} 4$.

$$
6 \quad . . \mathrm{Qg} 3+
$$

Now $6 \ldots \mathrm{~d} \times \mathrm{e} 4$ fails to $7 \mathrm{Ra} 7+$ ! Kh6 8 Ra 3 and $8 \ldots \mathrm{~B} \times \mathrm{d} 2+$ is answered by recapturing with check. However, $6 \ldots \mathrm{Qe} 3+$ would be just as good as the text.

## 7 Kd1

Or $7 \mathrm{Kf1} \mathrm{Qh} 3+8 \mathrm{Kel}$ Qh1 $+9 \mathrm{Ke} 2(9 \mathrm{Nf} 1$ loses at once to $9 \ldots \mathrm{Bh} 4+$, while $9 \mathrm{Kf} 2 \mathrm{Be} 3+10 \mathrm{Ke} 2 \mathrm{Og} 2+11 \mathrm{Kd} 3 \mathrm{~d} \times \mathrm{e} 4+12 \mathrm{Kc} 4 \mathrm{~B} \times \mathrm{d} 2$ transposes to a later point of this note) $\mathrm{Qg} 2+10 \mathrm{Kd} 3(10 \mathrm{Kdl} \mathrm{Qgl}+$ transposes to the game, while $10 \mathrm{Kel} \mathrm{QgI}+11 \mathrm{Ke} 2 \mathrm{~d} 3+12 \mathrm{~K} \times \mathrm{d} 3$ $\mathrm{Qe} 3+13 \mathrm{Kc} 2 \mathrm{Q} \times \mathrm{d} 2+$, followed by $14 \ldots \mathrm{Q} \times \mathrm{b} 2+$ and $15 \ldots \mathrm{Bf} 6+$ is trivial) $\mathrm{d} \times \mathrm{e} 4+11 \mathrm{Kc} 4 \mathrm{~B} \times \mathrm{d} 212 \mathrm{Ra} 7+\mathrm{Kh} 613 \mathrm{Q} \times \mathrm{d} 4$ and Black has excellent wimning chances in view of the relative safety of his king.

| 7 | $\ldots \mathrm{Qg} 1+$ |
| :--- | :--- |
| 8 Kc 2 | $\mathrm{~d}+$ |
| $9 \mathrm{Kb3}+$ | $\mathrm{Qb6}+$ |
| 10 Ka 2 | $\mathrm{Q} \times \mathrm{b} 2+$ |
| $11 \mathrm{~K} \times \mathrm{b} 2$ | $\mathrm{Bf6}+$ |
| 12 Kbl |  |

Of the available endings, this is the only one to offer drawing chances, e.g. 12 e $5 \mathrm{~B} \times \mathrm{c} 5+13 \mathrm{~Kb} 1 \mathrm{~B} \times \mathrm{a} 14 \mathrm{~K} \times \mathrm{al} \mathrm{h} 415 \mathrm{Nf} 3 \mathrm{Kh} 616 \mathrm{~Kb} 2 \mathrm{~g} .5$ $17 \mathrm{Kc} 3 \mathrm{Kh} 518 \mathrm{~K} \times \mathrm{d} 3 \mathrm{~g} 4$, and the h-pawn goes through; or 12 Kb 3 $\mathrm{B} \times \mathrm{a} 113 \mathrm{e} \times \mathrm{d} 5 \mathrm{Be} 514 \mathrm{Nf} 3 \mathrm{Bf} 415 \mathrm{Kc} 3 \mathrm{~d} 216 \mathrm{Kc} 2 \mathrm{Kg} 7$, and the king marches over to deal with the d-pawn.

$12 \quad$| $13 \mathrm{~K} \times$ al | $\quad \mathrm{B} \times \mathrm{al}$ |
| :--- | :--- |



Better than $13 \ldots \mathrm{~d} \times \mathrm{e} 414 \mathrm{~N} \times \mathrm{e} 4 \mathrm{Kh} 6$, which wastes time and makes it harder for the Black king to emerge.

During our adjournment analysis we had considered this ending an easy win and so had looked mainly at alternative lines for White. But on approaching this position, Jon Speelman suddenly realised that it was far from easy, if, indeed, there was a win at all. The reason for this discrepancy was not hard to discover-we had failed to replace all the pieces after analysing one of the earlier variations and so had been looking at this position with the Black king on h6 rather than h7! Fortunately Hverekilde hadn't looked at this position at all and immediately went astray.

## 14 Nf3?

Black threatened 14...h3 15 Nf 3 d 2 , but the correct antidote was 14 Kb 2 ! moving into the square of the d-pawn, with the continuation $14 \ldots \mathrm{~h} 315 \mathrm{Nf} 3 \mathrm{~d} \times \mathrm{e} 4(15 \ldots \mathrm{Kg} 716 \mathrm{e} \times \mathrm{d} 5 \mathrm{~g} 517 \mathrm{Nh} 2$ stops all the pawns) $16 \mathrm{Ng} 5+$ and now:
(A) $16 \ldots \mathrm{Kh} 617 \mathrm{~N} \times \mathrm{h} 3 \mathrm{Kh} 518 \mathrm{Nf} 2 \mathrm{~d} 219 \mathrm{Nd} 1!\mathrm{Kg} 420 \mathrm{Kc} 2$ or $17 \ldots$ g5 18 Nf 2 d 219 Nd 1 g 420 Kc 2 or $17 \ldots \mathrm{e} 318 \mathrm{Nf} 4 \mathrm{~d} 219 \mathrm{Kc} 2$, followed by 20 Ng 2 , in each case with a clear draw.
(B) $16 \ldots \mathrm{Kg} 717 \mathrm{~N} \times \mathrm{e} 4$ (simplest, but $17 \mathrm{~N} \times \mathrm{h} 3$ also draws after 17...Kf6 $18 \mathrm{Kc} 3 \mathrm{Ke5} 19 \mathrm{Kd} 2!\mathrm{Kd} 420 \mathrm{Nf} 4 \mathrm{e} 3+21 \mathrm{Kdl} \mathrm{Kc3} 22 \mathrm{Nd} 5+$ or $18 \ldots \mathrm{Kf} 519 \mathrm{Kd} 2 \mathrm{Kg} 420 \mathrm{Nf} 2+\mathrm{Kf} 321 \mathrm{Nh} 3 \mathrm{Kg} 322 \mathrm{Ng} 5$ and Black can make no progress) h2 (17...Kh6 18 Nf 2 ) 18 Nf 2 with a draw, since Black's king cannot come out, e.g. $18 \ldots g 519 \mathrm{Kc} 3 \mathrm{~g} 420 \mathrm{Nh} 1$ Kg6 $21 \mathrm{~K} \times \mathrm{d} 3 \mathrm{Kh} 522 \mathrm{Ke} 3 \mathrm{Kh} 423$ Kf2 Kh3 24 Ng 3.


Here White cannot take the more dangerous h-pawn, because his king is too far away and Black would promote with . . d2.

$15 \quad$| 16 | $\quad . . K h 6$ |
| :--- | :--- |
| $\mathrm{~N} \times \mathrm{e} 4$ | h 3 |

White is a vital tempo down over B above and this deprives him of the chance to play Nf2.

| 17 Kb 2 | h 2 |
| :--- | :--- |
| 18 Nf 2 | Kg 5 |
| 19 Kc 3 | $\mathrm{Kf4}$ |
| $20 \mathrm{~K} \times \mathrm{d} 3$ | Kf 3 |

## 0-1

as after 21 Nh 1 Kg 2 etc., the advance of the g-pawn is decisive.
The Rio Interzonal in 1979 provided two very interesting endings, with the unlucky Velimirovic on the wrong end of both of them.


Portisch-Velimirovic, Rio 1979
Although White is two pawns up at the moment, Black threatens to obtain an outside passed pawn by ...Kb4 followed by ...K $\times$ a 5 .

1 f5!
White uses a tactical point to push his own passed pawn as quickly as possible.

$$
1 \quad \ldots \mathrm{~B} \times \mathrm{f5} \text { ! }
$$

Although this should still lose, it is without doubt the best practical chance. After $1 \ldots \mathrm{~Kb} 42$ f6 Be8 $3 \mathrm{Nd} 4 \mathrm{~K} \times$ a $54 \mathrm{Kg} 3 \mathrm{~Kb} 45 \mathrm{~K} \times \mathrm{g} 4 \mathrm{Kc} 4$ ( $5 \ldots \mathrm{a} 56 \mathrm{Nc} 6+$ and $7 \mathrm{~N} \times \mathrm{a} 5$ wins as well) $6 \mathrm{Nf} 5 \mathrm{Kd} 57 \mathrm{Ne} 3+$ White wins with no trouble at all, but after the move played Black can rely on the fact that knights are particularly helpless against rook's pawns.

| 2 Nd4+ | K $\times$ a5 |
| :--- | :--- |
| 3 N $\times f 5$ | Kb4 |
| 4 | Ne3? |

This doesn't throw away the win, but it does make it much more difficult. After 4 Nd 4 ! Kc4 (4...a5 $5 \mathrm{Nc} 6+$ and $6 \mathrm{~N} \times$ a5 , while $4 \ldots \mathrm{Kc} 3$ 5 Nc6 holds up the pawn for two important tempi) 5 Nc 2 Kb 3 ( $5 \ldots$
a5 transposes, since Black must play ... Kb 3 at some point) $6 \mathrm{Na} 1+$ ! $\mathrm{Kb} 27 \mathrm{Kg} 3 \mathrm{~K} \times \mathrm{a} 18 \mathrm{~K} \times \mathrm{g} 4 \mathrm{a} 59 \mathrm{f} 4 \mathrm{a} 410 \mathrm{f} 5 \mathrm{a} 311 \mathrm{f} 6 \mathrm{a} 212 \mathrm{f} 7$ both sides promote, whereupon White exchanges queens and wins.

| 4 | $\ldots$ |
| :--- | :--- |

White had an alternative, completely different, winning method starting with 5 Kg 1 !. In order to understand the play after this move let us look first at the following position:


This position is mutual zugzwang. With Black to play we have $1 \ldots$ Kb 3 ( $1 \ldots \mathrm{Kd} 32 \mathrm{Nb} 4+$ ) 2 Kd 2 Kc 4 ( $2 \ldots \mathrm{~Kb} 23 \mathrm{Kd} 3 \mathrm{~Kb} 34 \mathrm{f} 4$ wins) 3 $\mathrm{Na} 1 \mathrm{Kd} 44 \mathrm{Nb} 3+\mathrm{Kc} 4$ (4...Kc45 Kc2) 5 Ke 2 Kb 46 Kb 2 Kc 47 Ncl and $8 \mathrm{~K} \times \mathrm{a} 2$ winning easily. But with White to play the lines 1 Kcl ( 1 Na Kb 22 Nc 2 Kc 3 ) Kd3 $2 \mathrm{~Kb} 2 \mathrm{Ke} 23 \mathrm{f} 4 \mathrm{~g} \times 134 \mathrm{Nd} 4+\mathrm{Kf} 25 \mathrm{~g} 4$ $(5 \mathrm{~g} \times \mathrm{f} 3 \mathrm{Ke} 3) \mathrm{Kg} 3$ and $1 \mathrm{~g} 3 \mathrm{~Kb} 32 \mathrm{Kd} 2(2 \mathrm{Kcl} \mathrm{Kc} 33 \mathrm{Na} 1 \mathrm{Kd} 34 \mathrm{Kd} 1$ Kc 3 repeats the position) Kb 23 Kd 3 (White cannot make a passed pawn on the kingside once he has played g 3 ) Kb3 both lead to draws. So in the play after 5 Kg 1 both sides attempt to reach the diagram position with the other player on the move: $5 \mathrm{Kgl!}$ a 46 Kfl Kb 3 ! (not $6 \ldots \mathrm{a} 3$ ? $7 \mathrm{Nc} 2+$ and $8 \mathrm{~N} \times \mathrm{a} 3$, while $6 \ldots \mathrm{Kc} 37 \mathrm{Ke} 2 \mathrm{a} 38 \mathrm{Kdl}$ wins, as $8 \ldots \mathrm{a} 29 \mathrm{Nc} 2$ is zugzwang, $8 \ldots \mathrm{Kd} 39 \mathrm{Nc} 2$ wins the a-pawn and $8 \ldots \mathrm{~Kb} 39 \mathrm{Nc} 2 \mathrm{a} 210 \mathrm{Kd} 2$ wins, as in the analysis of the diagram) 7 Ke1 Kc3 (Black must prevent $8 \mathrm{Kd2}$, followed by Nc 2 ) 8 Kc 2 ! (not 8 Kdl ? a3 9 Ne 2 a 2 and it is White to move!) a 3 (or else Kd 2 ) 9 Kdl a2 10 Nc 2 and wins.

$$
\begin{aligned}
& 5 \\
& 6 \mathrm{~g} 4!
\end{aligned} \quad \ldots \mathrm{g} \times \mathrm{f} 3
$$

The only winning move. Time is important and the pawn would take one move longer to promote after $6 \mathrm{~g} \times \mathrm{f} 3$.

$$
6 \text {...Kc3! }
$$

Not 6...a4 ( $6 \ldots \mathrm{~Kb} 3$ allows White to promote with check) 7 g 5 Kc 3 $8 \mathrm{~g} 6 \mathrm{a} 39 \mathrm{~g} 7 \mathrm{a} 210 \mathrm{~g} 8=\mathrm{Q}$ al $=\mathrm{Q} 11 \mathrm{Qg} 7+$ and White wins.

## 7 g5 Kd4?!

A weak move, as White has a skewer with the king on d4. 7...a4?! transposes to the last note, while $7 \ldots \mathrm{Kd} 2$ ?! $8 \mathrm{Nf} 1+\mathrm{Kel} 9 \mathrm{~g} 6$ promotes first. The best resistance was offered by $7 \ldots \mathrm{Kd} 3$ ! and now:

1) $8 \mathrm{Nd} 5 \ldots(8 \mathrm{Nd} 1 \mathrm{a} 49 \mathrm{~g} 6 \mathrm{a} 310 \mathrm{Nc} 3 \mathrm{f} 211 \mathrm{Kg} 2 \mathrm{~K} \times \mathrm{c} 312 \mathrm{~g} 7 \mathrm{fl}=\mathrm{Q}+13$ $\mathrm{K} \times \mathrm{f} 1 \mathrm{a} 2$ also draws) a 4 (but not $8 \ldots \mathrm{f} 2$ ? 9 Kg 2 , when $9 \ldots \mathrm{Ke} 210 \mathrm{Nf} 4+$ Ke1 $11 \mathrm{Nd} 3+\mathrm{Ke} 212 \mathrm{~N} \times f 2$ a $413 \mathrm{Ne} 4 \mathrm{a} 314 \mathrm{Nc} 3+\mathrm{Kd} 315 \mathrm{Na} 2$ and $9 \ldots \mathrm{a} 410 \mathrm{~K} \times \mathrm{f} 2 \mathrm{a} 311 \mathrm{~g} 6 \mathrm{Kc} 412 \mathrm{Ne} 3+\mathrm{Kd} 313 \mathrm{~g} 7 \mathrm{a} 214 \mathrm{~g} 8=\mathrm{Q} \mathrm{a} \mid=\mathrm{Q} 15$ Qc4+ Kd2 16 Qc 2 mate both win for White) 9 g 6 a3 10 Kg 3 ( 10 g 7 f 2 $11 \mathrm{Kg} 2 \mathrm{a} 212 \mathrm{~g} 8=\mathrm{Q} \mathrm{f1}=\mathrm{Q}+$ is dead drawn) Kc 4 ! ( $10 \ldots \mathrm{a} 2$ ? $11 \mathrm{Nb} 4+$ $\mathrm{Ke} 212 \mathrm{~N} \times \mathrm{a} 2 \mathrm{f} 213 \mathrm{Ne} 1+\mathrm{Ke} 314 \mathrm{Kg} 2$ wins) 11 g 7 ( $11 \mathrm{Ne} 3+\mathrm{Kd} 312 \mathrm{Nd} 5$ Kc 4 repeats, while $11 \mathrm{Nc} 3 \mathrm{~K} \times \mathrm{c} 312 \mathrm{~g} 7 \mathrm{f} 2!13 \mathrm{~K} \times \mathrm{f} 2 \mathrm{a} 214 \mathrm{~g} 8=\mathrm{Q} \mathrm{Kb} 2$ draws, as the White king is one square too far away to win) a $212 \mathrm{~g} 8=\mathrm{O}$ $\mathrm{a} 1=\mathrm{Q} \ldots 13 \mathrm{Ne} 3+\mathrm{Kd} 3$ and Black draws casily.
2) 8 Nf 1 ! (this surprising retreat leads to a study-like win) a 49 g 6 a 310 g7 a $211 \mathrm{~g} 8=\mathrm{Q}$ al $=\mathrm{Q} 12 \mathrm{Qh} 7+$ ! Kc4 $(12 \ldots \mathrm{Ke} 213 \mathrm{Qe} 4+\mathrm{Kd} 114 \mathrm{Ne} 3+$ $\mathrm{Kd} 215 \mathrm{Nc} 4+\mathrm{Kdl} 16 \mathrm{Qd} 3+\mathrm{Kcl} 17 \mathrm{Qf} 1+$ wins the queen) $13 \mathrm{Nd} 2+$ $\mathrm{Kb} 4 / \mathrm{b} 5$ (13 ...Kd5 $14 \mathrm{Qd} 7+$ also picks up the queen) $14 \mathrm{Qb} 7+$ followed by immediate mate, knight fork or skewer.

## 8 Ng4!

Not 8 Nc 4 ? $\mathrm{K} \times \mathrm{c} 49 \mathrm{~g} 6 \mathrm{Kd} 3$, promoting the f-pawn; but now Black cannot indulge in a pawn race due to the bad position of his king, e.g. $8 \ldots \mathrm{a}^{4} 9 \mathrm{~g} 6 \mathrm{a}^{3} 10 \mathrm{~g} 7 \mathrm{a} 211 \mathrm{~g} 8=\mathrm{Q}$ and $12 \mathrm{Qg} 7+$.


## 1-0

The final point-White holds up ...Kf5 long enough to take the f.3 pawn with his king. After $10 \ldots \mathrm{a} 411 \mathrm{~K} \times f 3 \mathrm{a} 3312 \mathrm{Kg} 4 \mathrm{a}_{2} 13 \mathrm{Nc} 2 \mathrm{Kf} 7$ $14 \mathrm{Kh} 5 \mathrm{Kg} 715 \mathrm{~g} 6 \mathrm{Kg} 816 \mathrm{Kh} 6 \mathrm{Kh} 817 \mathrm{~g} 7+\mathrm{Kg} 818 \mathrm{Na} 1$ White promotes the g-pawn.

The position I have chosen to finish the book is, despite its harmless appearance, far and away the most complex position in the book. Nevertheless, the analysis is quite fascinating and contains many surprising subtleties.


Timman-Velimirovic, Rio 1979

This is the position after White's 64th move, which was a capture. Objectively the position is drawn. Black places his bishop on b2 and the resulting control of the e5 and f6 squares renders it impossible for White to drive the Black king to the edge of the board. If it should happen, however, then White wins. It is also possible for White to win if the Black king comes adrift from the top right corner and moves either to the top left or bottom right corner, even if it is not on the edge of the board, since the bishop would then be unable to co-operate in the defence of Black's king. But this cannot be forced.

| 1 | ... Bf6 |
| :--- | ---: |
| 2 Re6+ | Ke7 |
| 3 Ke4 | Bb2 |
| 4 Kd5 | Kf7 |

Black can also draw by $4 \ldots \mathrm{Kd} 75$ Re6 Bcll,'although this is the only move, e.g:
(A) 5..Ba1 $6 \mathrm{Ra} 6 \mathrm{Bb} 27 \mathrm{Ra} 7+$ driving the king to the back rank, which, as was mentioned above, wins.
(B) $5 \ldots \mathrm{Kd} 86 \mathrm{Kd} 6$ (threat Re7) Bg7 $7 \mathrm{Re} 3 \mathrm{Bf} 8+8 \mathrm{Kc} 6 \mathrm{Bb} 49 \mathrm{Rh} 3$ and $9 \ldots \mathrm{Ke} 7$ loses to 10 Rb 3 ; so White can force 10 Rh 7 , pinning the Black king down.
(C) $5 \ldots \mathrm{Kc} 76 \mathrm{Rh} 6$ ! Ba 1 (or $6 \ldots \mathrm{~Kb} 77 \mathrm{Kc} 5$, threatening Rc6 followed by Kb5, transposing; while if $7 \ldots \mathrm{Kc} 7$ then $8 \mathrm{Rh} 7+$ ) $7 \mathrm{Rc} 6+\mathrm{Kb} 7$ (7...Kd7 $8 \mathrm{Ra} 6 \mathrm{Bb} 29 \mathrm{Ra} 7+$ ) $8^{4} \mathrm{Kc} 5 \mathrm{Bd} 4+9 \mathrm{~Kb} 5 \mathrm{Bb} 210 \mathrm{Rd} 6 \mathrm{Kc} 7$ (or else $\mathrm{Rd} 7+$ ) 11 Rd 3 ! and once again the king is forced back. In this line, as in a great many others to come, zugzwang was the main weapon. After $5 \ldots$ Bc1!, however, White can make no progress, for example 6 Ra 6 ( 6 Re 4 Bb 27 Re 1 Bc 3 ) $\mathrm{Ke} 77 \mathrm{Re} 6+\mathrm{Kd} 7$ ! (not 7... Kf7? 8 Ke 5 and $9 \mathrm{Kf5}$, transposing to the game at a point where White was winning) and the Black king can maintain itsclf on the second rank.

The losing move. After 5...Bal $6 \mathrm{Re} 3 \mathrm{Bb} 27 \mathrm{Kd} 6 \mathrm{Kf6} 8 \mathrm{Rf} 3+\mathrm{Kg} 5$ 9 Kd 5 Kg 410 Ke 4 (threatening 11 Rf 5 , cutting the king off and winning) Kg 5 Black cannot be driven on to the h-file.

## 6 Ke4

Transferring the king to f 5 gives a winning position, since White is then able to force the enemy king on to the back rank.

| 6 | Kf5 |
| :--- | :--- |
| $7 \mathbf{K f 5}$ | Kf8 |

Upon $7 \ldots \mathrm{Kg} 78 \mathrm{Re} 7+$ or $7 \ldots \mathrm{Bcl} 8 \mathrm{Re} 6$ and $9 \mathrm{Rc} 7+$ the king has to move to the edge of the board in any case.

$$
8 \mathrm{Kg} 6 \quad \mathrm{Bc} 3
$$

Whichever move Black makes with his bishop White gains a tempo to transfer his rook to the seventh rank.


Chéron was the first person to prove that White can win in this position and his analysis was published in [9]. The winning line is highly involved and requires more than 50 moves. However, Chéron was more interested in showing that a win was possible than in finding the shortest plan. Consequently Timman and Andersson were able to find a number of improvements and short cuts in Chéron's analysis, with the result that Timman was able to win the game in just under the 50 moves. Timman published his own notes in Schaakbulletin, and in the following we rely substantially on the analyses of Cheron. Timman and Andersson.

The winning plan falls into a number of stages:
(1) White forces the Black king on to the $\mathbf{h}$-file and stations his rook
on the $g$-file.
(2) White threatens to play $\mathrm{R} \times \mathrm{b} 2$ by withdrawing his king to b 3 . Black therefore has to prepare the transfer of his bishop to the a3f8 diagonal, which is far less secure. This, however, involves moving the Black king out of the top right corner, where it is most favourably posted.
(3) If Black actually puts his bishop on the a3-f8 diagonal, White runs it out of squares and wins the a-pawn.
(4) If Black returns it to b2, his king is cut off along a rank and is gradually forced up the board to h2 or g2.
(5) Cutting the king off along the third rank. White marches his king over to the queenside. If the Black bishop is still on b2 then Kb4 and $\mathrm{R} \times \mathrm{a} 3$ wins, while if it has moved to the a3-f8 diagonal it once again runs out of squares and White wins the a-pawn.

| 10 | KKe8 |
| :--- | ---: |
| 11 Kf5 | Kf8 |

Moving to the queenside loses quickly after $11 \ldots \mathrm{Kd} 812 \mathrm{Ke} 6 \mathrm{Kc} 813$ Kd6 Kb8 14 Rd 7 Kc 815 Kc 6 Bcl 16 Rd 3 Bb 2 (or $16 \ldots \mathrm{~Kb} 817 \mathrm{~Kb} 6$ Kc8 $18 \mathrm{Rc} 3+$ ) $17 \mathrm{Kb6}$ with zugzwang.

| 12 Ke6 | Kg8 |
| :--- | :--- |
| 13 R 7 | Bc3 |
| 14 | Rf3 |

Black will remain on this square as long as possible. After $14 \ldots \mathrm{Bb} 4$ $15 \mathrm{Rg} 3+\mathrm{Kf} 8$ ( $15 \ldots \mathrm{Kh} 716 \mathrm{Kf6} \mathrm{Bc} 517 \mathrm{Rg} 6 \mathrm{Bd} 4+18 \mathrm{Kf7} \mathrm{Bb} 219 \mathrm{Rc} 6$ Bd 420 Rc 4 Bf 221 Rc 2 Bg 122 Rc 1 wins the bishop) 16 Rb 3 Bc 517 $\mathrm{Rc} 3 \mathrm{Bb} 418 \mathrm{Rc} 7 \mathrm{Bd} 2(18 \ldots \mathrm{Kg} 819 \mathrm{Kf} 6$ and 20 Rf 7 transposes) 19 $\mathrm{Rf} 7+\mathrm{Kg} 8$ (19...Ke8 20 Ra 7 ) 20 Kf6 Bc3 +21 Kg 6 Bb 222 Rf 3 Bc 1 23 Rc3 wins. It is clear from this line thatt Black must avoid having his king bottled up in the corner, since a position with WKf7, Rg6 and BKh7 is a win whoever is to move and wherever the Black bishop is.

## 15 Ke7 Kh7

$15 . . . \mathrm{Kg} 716 \mathrm{Rg} 3+\mathrm{Kh} 6$ is the same, so Black cannot prevent the king being forced on to the $h$-file.

$$
16 \mathrm{Rg} 3 . \quad \mathrm{Kh} 6
$$

Stage one is completed! If White could somehow obtain a position with WKf5, Rg6 and BKh5 he would already be able to start on stage four, but after 17 Ke6 Kh5 18 Kf5 Kh6 he cannot make any direct progress. So he must make a detour via the queenside!

17 Kd6 Kh5
The following alternatives lose more quickly:
(A) $17 \ldots \mathrm{Bg} 718 \mathrm{Kd5} \mathrm{Bf} 8$ ( $18 \ldots \mathrm{Bb} 219 \mathrm{Kc} 4$ followed by 20 Kb 4 and $21 \mathrm{R} \times \mathrm{a} 3$ ) 19 Ke 6 and White is able to start stage three already.
(B) $17 \ldots \mathrm{Bcl} 18 \mathrm{Kd} 5 \mathrm{Kh} 519 \mathrm{Kc} 4 \mathrm{Kh} 420 \mathrm{Rg} 8$ and now:
(B1) 20...Be3 (20...Bf4/g5 are similar) 21 Kd 3 Bcl 22 Ke 4 Kh 523 Kf5 Kh6 (or else Rg6 reaches the position White is aiming for) 24 $\mathrm{Rg} 6+\mathrm{Kh} 725 \mathrm{Kf} 6$ and 26 Kf 7 winning.
(B2) $20 \ldots \mathrm{Bb} 221 \mathrm{~Kb} 3 \mathrm{Kh} 3$ (or else 22 Rg 2 and $23 \mathrm{R} \times \mathrm{b} 2$, or if $22 \ldots \mathrm{Bc} 123 \mathrm{Rc} 2) 22 \mathrm{Rg} 6 \mathrm{Bc} 1$ ( $22 \ldots \mathrm{Kh} 223 \mathrm{Rg} 4-\mathrm{a} 4-\times \mathrm{a} 3$ or $22 \ldots \mathrm{Kh} 4$ 23 Rg 2 lose as well) 23 Rc 6 Bb 224 Rc 4 followed by Ra4 and $\mathrm{R} \times \mathrm{a} 3$.

## 18 Kc 5

A similar approach is that given by Chéron, namely 18 Ke6 Kh6 (18...Kh4 19 Rg 6 and $20 \mathrm{Kf5}$ or $18 \ldots \mathrm{Bc} 19 \mathrm{Kf5} \mathrm{Kh} 620 \mathrm{Rg} 6+\mathrm{Kh} 7$ $21 \mathrm{Kf} 6) 19 \mathrm{Kd} 5 \mathrm{Kh} 520 \mathrm{Kc} 4 \mathrm{Kh} 421 \mathrm{Rg} 8$, transposing into the game after White's 21st move.

$$
18 \text {...Kh4 }
$$

Or else 19 Kb 4 and $20 \mathrm{R} \times \mathrm{a} 3$.

$$
19 \mathrm{Rg} 8 \quad \mathrm{Be} 5
$$

Black cannot delay preparing the move to the a3- 58 diagonal any longer, since $19 \ldots \mathrm{Kh} 320 \mathrm{~Kb} 4 \mathrm{Kh} 421 \mathrm{~Kb} 3$ transposes to B 2 in the note to Black's 17th move. If 19...Bf6 $20 \mathrm{Rg} 6 \mathrm{Be} 7+(20 \ldots \mathrm{Bb} 221$ Kb 4 is the same as $19 \ldots \mathrm{Kh} 3$ ) 21 Kd 5 Kh 522 Rg 3 and White transposes to the note to Black's 21st move after 24...Be7.


This represents the end of stage two and is the point at which Black has to decide whether to transfer his bishop permanently to the a3$f 8$ diagonal. One line where he does this is $21 \ldots$ Be $522 \mathrm{~Kb} 3 \mathrm{Bd}, 23$ Rg6 Bf8 (23...Bc5? $24 \mathrm{Ra6} \mathrm{Kg} 425 \mathrm{Ra} 4+\mathrm{Kf} 326 \mathrm{R} \times \mathrm{a} 3$ wins or 23...Be7 24 Kc 4 , which is similar to the text) $24 \mathrm{Kc} 4 \mathrm{Kh} 5(24 \ldots \mathrm{Be} 7$

25 Kd 5 Kh 526 Rg 3 Kh 627 Ke 6 Bb 428 Kf 5 transposes to the note to Black's 23rd move) 25 Rg 8 Be 7 ( $25 \ldots$ Bd6 $26 \mathrm{Kd5} \mathrm{Bb} 427 \mathrm{Rg} 3$ transposes) 26 Rg 2 ! (not 26 Kd 5 ? Bf6 and White has made no progress) Bd6 ( $26 \ldots \mathrm{Kh} 627 \mathrm{Kd5}$ Bf6 28 Rg 3 Bb 229 Kc 4 , followed by 30 Kb 4 and $31 \mathrm{R} \times \mathrm{a} 3$ wins, as does $26 \ldots \mathrm{Kh} 427 \mathrm{Kd} 5$, followed by Ke6-f5, when the Black king is cut off from the top right corner; while $26 \ldots \mathrm{Bf} 8$ is more or less the same as $26 \ldots \mathrm{Bd} 6$, because after either move Black is unable to answer Kd5 with a bishop move on to the al-h8 diagonal) 27 Kd 5 Bb 428 Rg 3 (not 28 Ke6? Bc3) Kh4 29 Rb 3 Bf 8 ( $29 \ldots \mathrm{Be} 7$ is much the same) 30 Rf 3 Be 731 Ke 6 Bc 5 ( $31 \ldots \mathrm{Kg} 432 \mathrm{Rc} 3$ Bf8 33 Rc8 Bh6 34 Rc4 + Kh5 35 Kf5 wins)


32 Rd3!! (a big improvement over Chéron's 32 Rc 3 ) and now: (A) $32 \ldots \mathrm{Kg} 433 \mathrm{Rc} 3 \mathrm{Bf} 834 \mathrm{Rc} 8 \mathrm{Bh} 635 \mathrm{Rc} 4+\mathrm{Kg} 5$ ( $35 \ldots \mathrm{Kh} 536 \mathrm{Ki} 5$ wins) 36 Kf 7 , followed by 37 Rc 3 winning the a-pawn.
(B) $32 \ldots \mathrm{Bf} 833 \mathrm{Kf} 6$ ! Kg 4 ( $33 \ldots \mathrm{Kh} 534 \mathrm{Rd} 4$ ! Bh $635 \mathrm{Kf5} \mathrm{Bf} 836 \mathrm{Rd} 8$ Bg 737 Rd 1 wins the bishop, while $33 \ldots \mathrm{Be} 534 \mathrm{Kf7} \mathrm{Kg} 4$ transposes to the main line) $34 \mathrm{Kf} 7 \mathrm{Bc} 535 \mathrm{Rc} 3 \mathrm{Bd} 6 \cdot 36 \cdot \mathrm{Ke} 6 \mathrm{Bf} 837 \mathrm{Rc} 8 \mathrm{Bh} 638$ $\mathrm{Rc} 4+\mathrm{Kh} 5(38 \ldots \mathrm{Kg} 539 \mathrm{Kf} 7$ as before) $39 \mathrm{Kf5} \mathrm{Bf} 840 \mathrm{Rc} 8 \mathrm{Bg} 741$ Rcl winning.

$$
22 \text { Rg6 Bg5 }
$$

$22 \ldots$ Be7 transposes to the last note, bracket after Black's 24 th move. 23 Kd5

In Informator Milic suggests 23 Kb 3 Bcl 24 Rg 1 Bb 225 Rg 2 as a quicker win, but of course Black plays 23...Be7.

## 23 ...Bc1

Black decides to return to b2, whereupon White starts on stage four. If Black attempts to bring his king back to the top right corner his bishop cannot return to b2. In this case the main line is 23 ... Kh5 24 Rc6! Bd2 (if $24 \ldots$ Bh6 25 Ke 6 , when $25 \ldots \mathrm{Bg} 726 \mathrm{Kf} 5$ transposes to the game; while $25 \ldots \mathrm{Kg} 626 \mathrm{Rc} 3 \mathrm{Bf} 827 \mathrm{Rg} 3+\mathrm{Kh} 628 \mathrm{Kf6} 6 \mathrm{Kh} 529$

Kf5 Kh6 $30 \mathrm{Rg} 6+\mathrm{Kh} 731 \mathrm{Kf6}$ and $32 \mathrm{Kf7}$ wins for White) 25 Ke6 Kg5 26 Rc 4 ! (zugzwang) and now:
(A) $26 \ldots \mathrm{Kg} 627 \mathrm{Rc} 2 \mathrm{Be} 1$ ( $27 \ldots \mathrm{Bb} 428 \mathrm{Rg} 2+\mathrm{Kh} 629 \mathrm{Rg} 3 \mathrm{Bc} 530 \mathrm{Kf} 5$ and now $30 \ldots \mathrm{Be} 7$ transposes to B1 below, while $30 \ldots \mathrm{Kh} 731 \mathrm{Kt} 6$ followed by Rg6 wins) $28 \mathrm{Rg} 2+\mathrm{Kh} 5$ ( $28 \ldots \mathrm{Kh} 6$ transposes to B) 29 Kf5 Kh4 (29...Kh6 $30 \mathrm{Rg} 6+\mathrm{Kh} 731 \mathrm{Kf6}$ or $30 \ldots \mathrm{Kh} 531 \mathrm{Rg}$ ) 30 $\mathrm{Rg} 4+\mathrm{Kh} 331 \mathrm{Ra} 4$ and wins.
(B) 26...Kh6 27 Rc 2 Be 1 (after 27...Bb4 28 Kf6 Kh5 29 Rc6! Black cannot prevent Kf5, since 29...Kh6 $30 \mathrm{Rc} 4 \mathrm{Bel} 31 \mathrm{Rcl} \mathrm{Bh} 4+32$ Ke6 and 33 Rc3 wins the a-pawn; so the Black king is cut off, with the bishop still unable to return to b2) $28 \mathrm{Rh} 2+\mathrm{Kg} 529 \mathrm{Rh} 3 \mathrm{Bb} 430 \mathrm{Rf} 3$ Kh5 (zugzwang again-if $30 \ldots \mathrm{Kg} 431 \mathrm{Rb} 3 \mathrm{Bf} 832 \mathrm{Rb} 8$ and both $32 \ldots$ Bc 533 Rc 8 and $32 \ldots$ Bh6 33 Rc8! Bd2 34 Rc 2 Bh6 $35 \mathrm{Rc} 4+\mathrm{Kg} 5$ 36 Kf 7 , followed by Rc3, lose the a-pawn) $31 \mathrm{Kf5} \mathrm{Kh} 632 \mathrm{Rg} 3 \mathrm{and}$ now:

(B1) $32 \ldots$ Be $733 \mathrm{Rg} 6+\mathrm{Kh} 734 \mathrm{Rc} 6$ ! Bb 4 (or $34 \ldots \mathrm{Kg} 735 \mathrm{Rc} 7 \mathrm{Kf} 8$ 36 Ke 6 , when both $36 \ldots \mathrm{Bg} 537 \mathrm{Rc} 3$ and $36 \ldots \mathrm{Bb} 437 \mathrm{Rf} 7+\mathrm{Kg} 838$ Kf6 Bc3 +39 Kg 6 Bb 240 Rf 3 Bc 141 Rc 3 win) 35 Kf 6 (threatening Kf7) Kh6 36 Rc4 Be1 $37 \mathrm{Rcl} \mathrm{Bh} 4+38 \mathrm{Kc} 6$ and 39 Rc 3 wins the pawn.
(B2) $32 \ldots \mathrm{Bc} 533 \mathrm{Rg} 4$ ! (Chéron's $33 \mathrm{Rg} 6+\mathrm{Kh} 534 \mathrm{Rc} 6 \mathrm{Bd} 4$ allows the bishop back to b2 and is much slower) Kh5 ( $33 \ldots$ Be $734 \mathrm{Rg} 6+$ is B 1 , while $33 \ldots \mathrm{Be} 334 \mathrm{Rg} 6+\mathrm{Kh} 735 \mathrm{Kf} 6$ and $33 . . \mathrm{Kh} 734 \mathrm{Kf} 6$ lose more quickly) 34 Rc 4 Bd 635 Ke 6 Bf 8 (or else 36 Rc 3 ) 36 Kf 7 Bd 6 37 Rd 4 , followed by 38 Rd 3 winning the pawn.
(C) $26 \ldots \mathrm{Kh} 527 \mathrm{Kf} 6 \mathrm{Bg} 5+$ (we have seen $27 \ldots \mathrm{Bh} 628 \mathrm{Kf} 5 \mathrm{Bf} 829$ Rc 8 Bg 730 Rc 1 before!) $28 \mathrm{Kf5} \mathrm{Kh} 629 \mathrm{Rc} 6+\mathrm{Kh} 530 \mathrm{Rc} 3$ wins.

| 24 Ke4 | Bb2 |
| :--- | :--- |
| 25 Kf5 | Kh5 |
| 26 Rd6! |  |

The most efficient method of executing stage four.

Forced, since $26 \ldots \mathrm{Bcl} 27 \mathrm{Rd} 1$ and $26 \ldots \mathrm{Bh} 827 \mathrm{Rd} 3$ win at once.


The alternative $30 \ldots \mathrm{Bb} 2$ loses after 31 Rg 1 Kh 332 Kf 4 Kh 233 Rg 4 Kh3 $34 \mathrm{Kf} 3 \mathrm{Kh} 2(34 \ldots \mathrm{Bc} 335 \mathrm{Ra} 4 \mathrm{Bb} 236 \mathrm{Kf} 2!\mathrm{Bc} 137 \mathrm{Ke} 2 \mathrm{Kg} 238$ Kd 1 Bb 239 Kc 2 Kf 340 Kb 3 and $41 \mathrm{R} \times \mathrm{a} 3$ wins) 35 Kf 2 ! (quicker than Chéron's $35 \mathrm{Rh} 4+$ ) Bf6 (or $35 \ldots \mathrm{Kh} 336 \mathrm{Ra} 4 \mathrm{Bc} 137 \mathrm{Ke} 2$ transposing to $34 \ldots \mathrm{Bc} 3$ above) $36 \mathrm{Rg} 2+\mathrm{Kh} 137 \mathrm{Kfl}(37 \mathrm{Kg} 3 \mathrm{Be} 5+$ $38 \mathrm{Kh} 3 \mathrm{Ba} 1!39 \mathrm{Rg} 3 \mathrm{Bb} 2$ is not so clear) Bb 238 Rg 3 Kh 239 Rb 3 Bc 1 $40 \mathrm{Ke} 2 \mathrm{Kg} 241 \mathrm{Kd1} \mathrm{Bb} 242 \mathrm{Kc} 2 \mathrm{Kf} 243 \mathrm{R} \times$ b2, promoting the a-pawn.

| $31 \mathrm{Rh1}+$ | Kg 3 |  |
| :--- | :--- | :--- |
| 34 | $\mathrm{Rd1}$ | $\mathbf{B b 4}$ |
| 33 Rd3+ | Kf2 |  |

Finally White can start on stage five of his plan.

## 34 Ke4 Ke2

Black can delay matters slightly by $34 \ldots \mathrm{Bc} 535 \mathrm{Kd} 5 \mathrm{Ke} 236 \mathrm{Kc} 4 \mathrm{Be} 7$ $37 \mathrm{Kc} 3 \mathrm{Bf} 8(37 \ldots \mathrm{Bf} 6+38 \mathrm{Kc} 2 \mathrm{Bb} 239 \mathrm{Rb} 3$ and $40 \mathrm{R} \times \mathrm{b} 2) 38 \mathrm{Kc} 2 \mathrm{Bc} 5$ 39 Rc 3 Bb 440 Rh 3 Bd 641 Kb 3 , transposing to the game at move 38 , but as White is 5 moves inside the fifty-move limit with the game continuation this could not affect the result of the game.

$$
35 \text { Kd4 Bc5+ }
$$

35...Kf2 36 Kc 4 Ke 237 Rh 3 and 38 Kb 3 transposes to the game exactly.
$36 \mathrm{Kc} 4 \quad \mathrm{Be} 7$

| 37 Rh 3 | Bd6 |
| :--- | :--- |
| $\mathbf{3 8 ~ K b 3}$ | Bf8 |

This position is a win wherever the bishop is on the a3-f8 diagonal and wherever the Black king is on the second rank. The bishop simply does not have enough squares on the diagonal, for example 38 ...Kd2 39 Rh 6 Bc 540 Rc 6 Be 741 Rc 7 Bf 842 Rf 7 ! (rather faster than Chéron's 42 Rc 8 ) Bc5 43 Kc 4 B moves 44 Kb 4 and $45 \mathrm{~K} \times \mathrm{a} 3$.

39 Rh8 Bd6
Or $39 . .$. Bc5 40 Rc8 Bd6 41 Ra8.
40 Ra 8

$$
1-0
$$

as $40 \ldots \mathrm{Kd} 2 / \mathrm{d} 3$ allows 41 Rd 8 , while after any other move White plays $41 \mathrm{R} \times \mathrm{a} 3$. Chess is a difficult game!

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In addition to the above, I have consulted many chess magazines and periodicals including Informator. The Chess Player, Chess, British Chess Magazine, Deutsche Schachzeitung and Shakhmaty Bulletin, as well as several tournament books.

A short description of the above books may be useful to those intending further reading on the endgame. [10] is still the best one-volume work on the endgame, although some sections (especially the queen and pawn ending chapter) are distinctly dated. The series of books [1], [2], [3], [4], [5], [6], [7] and [14], translated from the Russian, is justly famous for its comprehensive coverage of all types of ending. It is rather unfortunate that the commonly occurring ending of $\mathbf{R}+\mathrm{B}^{4} v \mathbf{R}$ is not to be found in any of these eight books, but such gaps are few. It remains an essential reference work for strong players and correspondence players. [9] is a rather curious work. Although it contains exceptionally complete analysis of many simple endgames of great importance to the over-the-board player, the author sometimes analyses endgame studies of no interest whatsoever. However, there is a good deal of analysis to be found nowhere else (as position 134 in this book makes clear!) and if you like some fantasy mixed in with the instruction you will probably like this work. [11] is an entertaining and little-known book.
[17] is probably closest in spirit to the present book and treats very thoroughly the comparison of game and study.

Surprisingly there are a large number of books on studies. [15] and [16] are the standard anthologies in English, although the solutions are often not sufficiently detailed. [12] will appeal to players, since none of the positions contains more than seven pieces and so they tend to be game-like, while [13] is a collection of studies by one of the greatest composers of all time. However, I feel that [8] is perhaps the best book in English for players who have an interest in studies, since the positions have been deliberately selected to be of relevance to the practical player. [18] contains a well-written account of the development of studies over the centuries.

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R+B}+\textrm{Ps}\vee\textrm{R}+\textrm{Ps}6,11,30,6
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R+minor piece v 2 minor pieces 13,42,123,129
R+N+Ps v R+N+Ps 2,8
R+B+Ps v R+B+Ps 45,47,49,50,79,102,130
R+B+Ps}\vee\textrm{R}+\textrm{N}+\textrm{Ps}28,38,56,6
R+2B+PS}\vee\textrm{P}+\mp@subsup{\textrm{PS}}{\textrm{S}}{}12
R+Ps\veeB+2N+Ps}12
2R+Ps v R +N+Ps }
2R}+\mp@subsup{\textrm{Ps}}{\textrm{s}}{}\vee\textrm{R}+2\mathrm{ minor pieces }+\mp@subsup{\textrm{P}}{\textrm{s}}{}\mathrm{ 7,46
R}+2N+Ps v R+N+Ps 104
2R+B+Ps\veeR+B+Ps }1
2R+B+Ps}\vee2R+Ps\quad1
```

$R+2 B+P_{s} \vee R+B+N+P_{s} \quad 60$
$2 \mathrm{R}+\mathrm{N}+\mathrm{Ps} \times 2 \mathrm{R}+\mathrm{B}+\mathrm{Ps} \quad 40$
V. Queens and pawns
$\mathrm{Q}+\mathrm{Ps}$ v Q 22, 31, 32, 34
$\mathrm{Q}+\mathrm{Ps} \vee \mathrm{Q}+\mathrm{Ps}$ 21, 33,58, 96, 116a
VI. Queens and minor pieces
$\mathrm{Q}+\mathrm{B}+\mathrm{Ps} \vee \mathrm{Q}+\mathrm{Ps} \quad 3,76,76 \mathrm{a}$
$\mathrm{Q}+$ minor piece $+\mathrm{Ps} \vee \mathrm{Q}+$ minor piece $+\mathrm{Ps} \quad 61,72,98$
VII. Queens, rooks and minor pieces
$\mathrm{Q}+\mathrm{R}+\mathrm{Ps} \vee \mathrm{Q}+\mathrm{R}+\mathrm{Ps} \quad 39$
$\mathrm{Q}+\mathrm{Ps} \vee \mathrm{R}+$ minor piece $+\mathrm{Ps} \quad 19,80$
$\mathrm{Q}+\mathrm{R}+\mathrm{Ps} \vee \mathrm{Q}+$ minor piece +Ps 99
$\mathrm{Q}+\mathrm{R}+\mathrm{Ps} \vee \mathrm{Q}+2$ minor pieces $+\mathrm{Ps} \quad 24,126$
Other combinations of material 54,132

The endgane is the most important phase of the game whete ome mistake can prove fatal. Howerver, its study is oltew ineglected by average players and endings an eolten comsidered uninteresting.

Grankemaster Jolm Num demonstrates in this entertaining work that endings can be exciting and tactical with many points to be gained by the alert player: Tiwo examples of missed opportanitics will suffice to illustrate the importance of studying endings: for mer Soviet Champion Tsheshkovsky resigned a drawn rook against rook and jawn James
position in diagram 111, while sixtimes tIS Champsiom Walten Browne misserl a win with ouly king and prav cach in diagram 117!

If these great players can misplay simple enclings, then all players will benefit from a detailed study of the subject.

Granctinuster John Num has been n the English ()lympiad team siner 19 and won 3 gold medals in the 1984 Olympiad. Ife is author of several loooks inchading Secrets of Girandmasti Plav anid Sohnmg in Stvle.
148 -diagrams

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